Travel Forecasts
for the
San Francisco Bay Area
2009 Regional Transportation Plan
Vision 2035 Analysis

Data Summary

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I. STUDY BACKGROUND

In July 2007, the MTC Planning Committee authorized staff to proceed with a performance-based approach to developing the Transportation 2035 Vision for the update of the San Francisco Bay Area Regional Transportation Plan (RTP). The approach calls for assessing three investment scenarios relative to a set of specific performance targets of congestion, vehicle miles traveled, emissions, and equity. The analysis applies land use and pricing sensitivity tests to each of the investment scenarios to see how such policy measures could help the region achieve the targets.

This data summary provides the detailed technical documentation for the input assumptions, forecasting methodologies, and forecasting results for this Transportation 2035 Vision analysis.

A. Scenario Performance Assessment

MTC began this Scenario Performance Assessment by defining ambitious performance targets for each of the three E's – economy, environment, and equity – taking our lead from state plans and legislation where possible. Significantly, all of the targets call for improvements over current performance. This is notably ambitious since the best we've been able to do in the past is slow the rate of deterioration.These targets are not the sole objectives we seek to achieve in a comprehensive long range plan. They do, however, provide guideposts that allow us to test—through models and other analytical tools—what it might take to shape and achieve a different transportation environment 25 years in the future.

The next stage of the analysis was to assess what it takes to reach those targets, first through analysis of scenarios for expanding and enhancing the transportation system, and second, through sensitivity tests of land use and pricing policies. In the end, the effort will help us understand whether the targets are achievable; what it would take to reach them; and what new authority or new partnerships may be required.

B. Performance Targets

The following performance targets were established for the scenario assessment:

Economy: Congestion

- Reduce person hours of delay by 20 percent below today's levels by 2035
  Source: Governor's Strategic Growth Initiative

Environment: Carbon Dioxide (CO_2) and Particulate Matter (PM) Emissions

- Reduce CO_2 emissions by 40 percent below 1990 levels by 2035
- Reduce $PM_{2.5}$ emissions by 10 percent below today's levels by 2035
- Reduce emissions of coarser particulate mater (PM_{10}) by 45 percent under today's levels by 2035
  Sources:
  CO_2 – California Global Warming Solutions Act of 2006 and Governor's Executive Order S-20-06
  PM – State and national standards

Environment: Vehicle Miles Traveled (VMT)

- Reduce VMT per capita by 10 percent compared to today by 2035
  Source: California SB 375 (Steinberg) (2007-08 Legislative Session), prior to amendment

Equity: Affordability of Housing and Transportation

- Decrease by 10 percent from today the share of household income consumed by housing and transportation costs for low and lower-middle income households
  Source: Adapted from the Center for Housing Policy report A Heavy Load: The Combined Housing and Transportation Burdens of Working Families (October 2006)

C. Investment Scenarios

To understand how transportation system expansion and enhancements contribute toward the targets, MTC started with three modally based investment scenarios. Because this is a visioning effort, the scenarios are designed to be distinct enough to reveal differences in performance and are not constrained to expected revenues. The scenarios (describe further in Section IV) are:

- **Freeway Performance:** operational strategies such as ramp metering and limited capacity expansion such as HOV lanes as defined through MTC's Freeway Performance Initiative.
- **High-Occupancy/Toll (HOT) Lanes/Express & Local Bus Service**: based on the Regional HOT Networks Study with complementary express and local bus enhancements.
- **Rail & Ferry**: based on the Regional Measure 2-mandated Regional Rail Plan and the Water Transit Authority's Ferry Implementation and Operations Plan.

In addition to the three scenarios, MTC staff produced parallel forecasts for a **Baseline Investment Scenario**, based on the most recent MTC Transportation Improvement Program (TIP).

D. Sensitivity Analyses

Past analyses suggest infrastructure expansion alone will not be enough to meet the ambitious performance targets. Therefore, land use and pricing sensitivity analyses were conducted on the investment scenarios to see how demand-based strategies might help us reach the targets. The sensitivity tests should not be considered recommendations. Rather, they are purposely aggressive to see what level of impact bold policy changes could have on performance of the infrastructure investments.

- **Land Use Sensitivity Analysis:** ABAG staff produced an alternative land use forecast that goes beyond the policy-based Projections 2007 series in both balancing jobs and housing and targeting growth in existing communities and near transit. The alternative land use is first and foremost a policy forecast, as opposed to a purely market-driven outcome.

  Compared to Projections 2007, the alternative forecast reflects considerable shifts in regional growth to existing employment and housing centers, areas projected to have either household or employment growth, and areas with existing and/or planned transit. The alternative scenario also assumes fewer in-commuters from neighboring regions by accommodating approximately 37,000 more households within the Bay Area. (A full report on the ABAG methodology is available by request to ABAG.)

- **Pricing Sensitivity Analysis:** MTC staff defined a set of user-based pricing strategies that would induce changes in travel behavior by increasing the cost of driving. The analysis scenario includes several strategies in combination (see section III for more detail):
  (a) Carbon tax or tax on vehicle miles driven that would essentially double auto operating costs
  (b) Congestion fee for using congested freeways during peak periods
  (c) Increased parking charges for all trips

In addition to the land use and pricing sensitivity analyses, MTC tested an "increased telecommuting" scenario against two of the four investment scenarios. This increased telecommuting test reduces the number of trips to and from home and work by 10 percent. This 10 percent is based on the current level of work-at-home share for workers residing in Marin County (according to the 2006 American Community Survey.)

In total, eighteen (18) year 2035 forecasts were prepared between July and October 2007 for this Vision 2035 analysis. Each of the four investment scenarios (Baseline; Freeway Performance; HOT/Express+Local Bus; Rail+Ferry) were tested by four sensitivity scenarios: "base assumptions"; land use sensitivity; pricing sensitivity; and a combined land use plus pricing sensitivity test. The "increased telecommuting" test was applied to the Freeway Performance and the HOT/Express+Local Bus investment scenarios, which were the best performing infrastructure investment scenarios with respect to the targets.

The results of the scenario performance assessment were highlighted at the joint ABAG/MTC Fall Forum on FOCUS and Transportation 2035 Vision, on October 26, 2007 at the Oakland Marriott.

E. Structure of Data Summary

The balance of this report is included in ten sections. The first three sections (socio-economic forecasts; pricing assumptions; network assumptions) detail the input assumptions to the investment scenarios and sensitivity analyses. The following two sections (trip generation/trip distribution forecasts; mode choice forecasts) summarize the detailed travel forecasting results. And the last five sections (traffic characteristics; air quality; affordability; cost-effectiveness; transit ridership analysis for the HOT/Express + Local Bus alternative) provide background on the performance target analyses.

The text is intended as a walk-through to the technical tables, as well as to highlight the pertinent issues and findings.

At the end of the text section of this report we include summary tables that show the "bottom line" performance target analyses. These tables are repeated from the latter sections of this report, and are reported here for ease of reference.

F. About the Travel Models & Air Quality Models Used in this Analysis

The current set of MTC travel demand models are typical of advanced trip-based travel models in use in the United States. MTC staff estimated these models in the mid-1990s using data from the 1990 Bay Area household travel survey (BATS1990).

The current trip-based models are a blend of disaggregate and aggregate demand models, all applied at an aggregate, zonal level with extensive market segmentation. Auto ownership models are nested logit choice in form, and include transit/highway accessibility variables. Trip generation models are either disaggregate household, worker or student trip production or aggregate zonal trip production/attraction in form, using hybrid cross-classification / multiple regression forms. Trip distribution models are standard gravity model formulations. Mode choice models are nested logit choice. Non-motorized trips (separate modes for bicycle and walk) are included in all mode choice models. Departure time choice for work trips is a binomial logit choice, whereas departure time choice for non-work trips is based on traditional trip peaking factors. Trip assignment procedures focus on daily traffic and transit trips, and AM peak period traffic volumes and speeds. Customized speed-flow delay curves are used in traffic assignment, including an Akçelik

formulation for representing arterial speeds. The model system methodology incorporates full feedback from trip assignment back through auto ownership. Trip assignment (district-to-district travel times and costs) are also used as input to the land use allocation models used by MTC's sister agency, the Association of Bay Area Governments (ABAG). Detailed travel model specifications for this "BAYCAST-90" model system are available online at http://www.mtc.ca.gov/maps_and_data/datamart/forecast/.

Future MTC plans are to migrate to a fully disaggregate, activity-based model by 2009. Detailed information on these activities and plans are included on the MTC web site, here: http://www.mtc.ca.gov/maps_and_data/datamart/abm/

The current MTC model system incorporates 1,454 regional travel analysis zones in a region of 7,149 square miles.

The California Air Resources Board (CARB) model "EMFAC2007" (in BURDEN mode) was used by MTC planners for this study. MTC staff also used CARB spreadsheet models to adjust the emissions to take into account improved vehicle technology standards (the "Pavley Standards" included in the 2002 California AB 1493).

II. SOCIO-ECONOMIC FORECASTS (Table A.1 – A.5)

The Association of Bay Area Government's (ABAG) *Projections 2007* are the detailed socio-economic inputs to this Vision 2035 analysis. ABAG's *Projections 2007* was adopted by the ABAG policy board in Fall 2006, and published in December 2006. The final, tract-level forecasts for *Projections 2007*were produced in mid-August 2007. MTC staff then re-allocated the tract-level (n=1,405) projections to MTC regional travel analysis zone level (n=1,454).

The ABAG *Projections 2007* is not strictly a "trends-based" forecast, but is based on detailed analysis of land use policies and potentials for smart growth. From the ABAG documentation: "In this forecast, policy-based development potential is used for the years 2015-2035 in a manner which is broadly consistent with existing [general] plans, but also assumes a more 'Smart-Growth' based projection."

The two key years included in the Vision 2035 analysis are a year 2006 base and a year 2035 horizon. The 2006 base year data is a simple linear interpolation, at the travel analysis zone level, between the 2005 and 2010 ABAG *Projections 2007* forecasts.

In addition to the "standard" ABAG *Projections 2007* forecast for the year 2035, ABAG staff prepared a more aggressive "Land Use Alternative" that is documented in Tables A.1 through A.5. ABAG documentation on this "Land Use Alternative" is included in the memorandum "Alternative Land Use Scenario for Transportation 2035 Vision Scenario Performance Assessment" from Paul Fassinger, Christy Riviere and Marissa Cravens, dated 8/27/2007.

County-level comparisons of the most relevant socio-economic characteristics, for 2006 and the two 2035 scenarios, is included in Table A.1. What is significant is the 26 percent increase in population between 2006 and 2035, ranging from a 12 percent increase in Marin County to a 36 percent increase in Solano County. The most striking difference in the land use alternative is a 22 percent increase in projected San

Francisco County population, relative to the 957 thousand population projected in the standard *Projections 2007*.

Another item of interest is the regional "net in-commute" (total employment less employed residents) (Table A.1.6), which is one of the better measures to understand the "jobs/housing" balance within a metropolitan area. The standard *Projections 2007* is showing a very modest increase in the net in-commute in the Bay Area between 2006 and 2035, increasing from 216 thousand net in-commuters to 231 thousand net in-commuters, a 7 percent increase. The Land Use Alternative reverses this trend, and eliminates metropolitan imbalances; with a resulting 22 thousand net out-commute by the year 2035 (e.g., more workers than jobs in the Bay Area).

The socio-economic projections are also reported by the MTC "urban/suburban" density levels in Table A.2. These density groups are defined using the gross population density and gross employment density within each of the 1,454 travel analysis zones, using the following classification system:

Density Group	Density Range (MaxDensity)
Rural	< 500 persons/jobs per square mile
Rural-Suburban	500 to 1000 persons/jobs per square mile
Suburban – Dispersed	1,000 to 6,000 persons/jobs per square mile
Suburban – Dense	6,000 to 10,000 persons/jobs per square mile
Urban	10,000 to 20,000 persons/jobs per square mile
Urban Core	> 20,000 persons/jobs per square mile

Where: MaxDensity = MAX(GPOPD,GEMPD)
GPOPD = Gross Population Density (Total Population per Total Square Mile)
GEMPD = Gross Employment Density (Total Employment per Total Square Mile)

Some of the notable findings (based on the "standard" ABAG Projections 2007 forecasts) are that 35 percent of the Bay Area's population is currently residing in the urban or urban core of the region (comprising 3 percent of the land area). This is projected to increase to 47 percent of the region's population by the year 2035 (within 4 percent of the region's total land area.)

Jobs (total employment) are also highly concentrated in the urban/urban core of the Bay Area, increasing from 39 percent of regional jobs in 2006 to 55 percent of regional jobs by the year 2035 (Table A.2.6).

Low-income households also tend to be highly concentrated in the urban/urban core, increasing from 49 percent of the region's low-income households in 2006 to 63 percent of the region's low-income households by the year 2035 (Table A.2.15).

The last three tables in this section (Table A.3 – A.5) report on the MTC forecasts on household vehicle availability. (MTC's household vehicle availability model uses the ABAG forecasts of households by income level, and further splits these households by the number of workers in the household (0, 1, 2+) and by the number of vehicles available in the household (0, 1, 2+).)

Forecasts of regional households by income level by vehicle availability are summarized in Table A.3. Interestingly, the average vehicles per household by income level is projected to decrease between 2006 and 2035; however, the faster growth in higher income households relative to lower income households yields a slightly higher, overall vehicles available per household, increasing from 1.76 vehicles/household in 2006 to 1.78 vehicles/household by the year 2035.

The regional share of households with zero vehicles available is projected to increase from 10.1 percent in 2006 to 10.4 percent by the year 2035. For low-income households, the share with zero vehicles is projected to increase from 27.7 percent in 2006 to 33.5 percent by 2035.

The "smartest growth" or the aggressive "location efficiency" of the Land Use Alternative will achieve even lower overall levels of vehicle ownership, and increasing the number and share of households with zero vehicles.

County-level household availability forecasts are summarized in Table A.4. Base year vehicles per household ranges from a low of 1.15 in San Francisco to a high of 1.95 in Napa, San Mateo and Solano Counties. For the year 2035, vehicles/household ranges from a low of 1.14 in San Francisco to a high of 2.05 in Solano. For the 2035 Land Use Alternative, vehicles per household ranges from 0.95 in San Francisco to 2.12 in Napa.

We are predicting a 29 percent increase in the number of zero-vehicle households between 2006 and 2035, increasing from 264 thousand to 341 thousand households (Table A.4.4). The number of zero-vehicle households increases to nearly 437 thousand in the Land Use Alternative.

San Francisco County has the highest share of households with zero vehicles, increasing from 27.4 percent in 2006 to 28.9 percent by 2035. With the Land Use Alternative, we are showing 40.3 percent of San Francisco County households with zero vehicles.

Household vehicle availability by density level is summarized in Table A.5. Vehicles per household levels are lowest in the urban core and urban areas of the region, and highest in the rural to rural-suburban fringes of the region. Zero vehicle households and household shares are also highest in the urban core of the region, with 32 percent of households in 2006 owning zero vehicles, decreasing to 30.1 percent of households in 2035 having zero vehicles. The urban core zero-vehicle household share increases to 41.4 percent in the Land Use Alternative.

III. PRICING ASSUMPTIONS (Table B.1 – B.3)

Historical (1990-2006) and projected (2007-2035) gas prices and fuel economy are shown in Table B.1. The base assumptions are that gas prices will increase from today's average of $3.26 per gallon to $3.79 per gallon, in today's (2007) dollars. Offsetting this increase in fuel price is an increase in predicted fuel economy, increasing from 21.0 miles per gallon in 2007 to 27.7 miles per gallon by the year 2035. This means that gasoline operating costs, in 1990 cents per mile, is predicted to decrease from 9.55 cents/mile in 2007 to 8.46 cents/mile by 2035.

(For all pricing and income assumptions, all costs are expressed in 1990 constant dollars, as the current generation of MTC models are based on 1990 costs and incomes. This is a technical necessity. For illustrative purposes we sometimes express the costs in "today's dollars.")

For future year inflation, we are assuming 2.9 percent per year. This is based on the overall, compounded Bay Area inflation rate between 1990 and 2006. This inflation assumption is important in that we do not assume that bridge tolls will keep pace with inflation. This means that we are not assuming a toll increase beyond the current $4.00 per crossing bridge toll. Inflation will reduce the value of this $4.00 to

approximately $1.10 in 1990 constant dollars, by the year 2035. This is very similar to the $1.00 actual toll paid by Bay Area bridge users in the year 1990 (see Figure B.1).

Details of the pricing sensitivity analysis assumptions are included in Table B.2. Gas prices are assumed to double in the pricing sensitivity analysis, from $3.79 per gallon in the 2035 base scenarios to $7.58 (all in 2007 current dollars). Overall total auto operating cost per mile would also double, from 23 cents per mile to 46 cents per mile. This is intended to represent both a VMT and carbon tax.

Bridge tolls would remain unchanged in the pricing sensitivity analysis, relative to the base assumptions.

Transit fares would also remain unchanged in the pricing sensitivity analysis, relative to the base assumptions. We are assuming that transit fares, for all operators, will keep pace with inflation. So, all of the alternatives, as tested, are "transit fare neutral" as all fares are today's (2007) fares, all deflated to constant dollars.

The pricing sensitivity tests also include a congestion pricing charge of 25 cents per mile for congested freeway segments. This congestion charge is added to freeway segments where the volume-to-capacity ratio exceeds 0.90 (very congested facilities).

Lastly, parking costs are increased by $1.00 per hour to both peak and off-peak parking costs. This impacts both work and non-work trips, and has a higher impact on short trips than long trips. So, these increased parking costs will end up showing more non-motorized (bicycle, walking) trips in the pricing sensitivity tests.

The table bellow illustrates the effect of the pricing test on a sample, 11-mile (one-way) typical commute. The cumulative effect is a five-fold increase in transportation cost. This can be considered more or less a worse case scenario because it assumes no charge for parking under baseline conditions (i.e., place of work is not downtown San Francisco or Berkeley) and travel in both directions occurs on congested freeways subject to the congestion charge.

Illustrative Effect on Cost for Work Trips*

	Baseline	**Pricing Test**
Auto operating cost	$5.06	$10.12
Congestion charge	$0	$5.50
Parking		
Current	$0	$4.41
Surcharge	$0	$8.00
Total	**$5.06**	**$28.03**
Cost per Mile (22 miles round trip)	**$0.23**	**$1.27**

*Assumptions include:

- Commute is 11 miles one way; 22 miles round trip
- Traveling on congested freeway during the peak period
- No parking charge in the baseline (trip is to destination other than downtown San Francisco or Berkeley)

The overall impact of these pricing sensitivity tests is best summarized in the transportation affordability section of this report.

IV. NETWORK ASSUMPTIONS (Table C.1 – C.3)

The 2035 investment scenarios include three basic highway networks: the baseline (TIP) highway network, used in the baseline and Regional Rail + Ferry alternatives; the Freeway Performance Initiative alternative; and the HOT/Express + Local Bus alternative. The county-level lane miles, by scenario, is shown in Table C.1. Another measure of highway system capacity, coining the term "gross capacity" (lane miles multiplied by per lane capacity) is summarized in Table C.2.

The baseline (TIP) highway network has 3.6 percent more lane-miles than the 2006 network. The other two networks increase the highway network by less than 1.0 percent relative to the baseline network.

The largest change is the 8.0 percent increase in gross capacity in the Freeway Performance Initiative network, compared to the baseline network (Table C.2). This is due to the increase per-lane capacity assumptions included in the FPI alternative. These assumptions reflect the deployment of operations and management strategies: traffic operation system (TOS), ramp metering and arterial signal coordination throughout the system.

The 2035 investment scenarios include three basic transit networks: the baseline (TIP) transit network, used in the baseline and the FPI alternatives; the HOT/Express + Local Bus transit network; and the Regional Rail + Ferry transit network. Summaries of the peak period transit service hours by technology (bus transit, light rail transit, etc.) is included in Table C.3.1. Route miles by technology are shown in Table C.3.2, and passenger transit seat miles is summarized in Table C.3.3.

The transit supply table shows that the HOT/Express + Local Bus network adds the greatest new supply to the regional transit network, a 61 percent increase in peak period transit service hours relative to the 2035 baseline. In comparison, the Regional Rail + Ferry transit network is a 49 percent increase relative to the 2035 baseline. The transit service hours is the most relevant measure to understand differences in transit supply, since the consumer is basically making choices on the travel times and costs offered by the different alternatives, as opposed to more "gross capacity" measures such as transit seat-miles.

The remainder of this section provides details on the four investment scenarios.

A. Baseline Alternative

The Baseline includes only those projects in the 2007 TIP.

B. Freeway Performance (Freeway Operational Improvement) Scenario

The purpose of the Freeway Performance scenario is to maximize the efficiency and improve the management and reliability of the existing transportation infrastructure, while minimizing traditional expansion of the system. This scenario, developed in consultation with Caltrans District 4 and the Bay Area Congestion Management Agencies, includes strategies to help attain Transportation 2035 targets, including improved air quality by maintaining optimal vehicle speeds and reduced congestion for better health and economic savings for both businesses and travelers.

The Freeway Performance scenario is comprised of the following key elements: (1) full deployment of the TOS infrastructure system to minimize the impacts of incidents on congestion and reliability, along with a regional operations and maintenance fund to preserve and replace equipment when necessary, (2) implementation of ramp metering on the region's entire freeway system in order to accomplish demand

management and maximize use of the freeway system's available capacity, (3) corridor management to balance freeway and arterial traffic through comprehensive integration of all travel modes using improved arterial operations and signal coordination, and (4) closing of critical gaps in the region's HOV lane system through use of shoulders by buses and short-distance and easily implemented gap closures. (See Figure 1 through Figure 3.)

C. High-Occupancy/Toll (HOT) Lanes Network and Express + Local Bus Scenario

This scenario comprises two major elements:

1. HOT Lanes Network
   The regional high-occupancy/toll (HOT) lanes network includes some 757 lane-miles of HOT lanes. The HOT network, which is the subject of the Regional HOT Lanes Network Study currently underway, would be created by converting nearly 500 miles of existing and funded carpool lanes to HOT lanes, closing gaps and extending the carpool/HOT system. Buses and qualifying carpools would use the HOT lanes free of charge; other vehicles would pay a toll to use the lanes. The toll, which would be collected electronically, would vary based on congestion level. The number of toll paying vehicles would be monitored and controlled though toll rates so the HOT lanes do not become overcrowded and slow down. (See Figure 4 and accompanying table.)

   More information on the HOT network can be found in "Bay Area HOT Network Study Final Report" (September 2007) by MTC.

2. Express Bus and Local Transit
   To take advantage of the HOT lanes, enhancements to and expansion of regional express bus services are identified to serve the morning and afternoon peak periods.[1] These service improvements augment existing regional express bus services. The additional service supplies are estimated to be: 980,000 service hours, 21,340,000 vehicle miles, and 670 expansion buses. The regional express bus service improvements are accompanied by supporting infrastructure improvements such as new park-and-ride lots, transit centers, and direct HOV/HOT access ramps.

   In addition, local bus and light rail improvements are included in the scenario to complement and support improved regional express bus services and existing BART, railroad-based commuter rail, and ferry services. For local buses, the general approach was to identify major trunk corridors, and to improve peak and off-peak service levels of the local bus transit that operate on them. The improvements include upgrading services to BRT or Rapid status and assuming complementary transit priority measures or speed protection measures, such as signal priority, queue jumpers, bus lanes, etc. The improvements to local bus services are estimated to add: 5,280,000 service hours, 73,000,000 service miles, and 1,400 buses. The improvements to light rail services are estimated to add: 245,000 service miles, 3,760,000 service hours, and 97 rail cars.

   In summary, the local and express bus improvements increase service hours by 82%, service miles by 111%, and fleet size by 65%. The light rail improvements increase service hours by 33%, service miles by 45%, and fleet size by 35%.

[1] The express bus service improvements are informed in part by previous and current planning efforts, such as MTC's Bay Area Transportation Blueprint for the 21st Century (2000), the Regional Rail Plan (underway, see Scenario #3), and the Freeway Performance Initiative (underway, see Scenario #1).

More information on the Express Bus / Local Bus components of this alternative are included in Section XI of this report.

D. Regional Rail and Water Transit Scenario

This scenario comprises two major elements:

1. Regional Rail
   MTC, California High-Speed Rail Authority (CHSRA), BART, and Caltrain, along with a coalition of rail passenger and freight operators, prepared a comprehensive Regional Rail Plan for the Bay Area, as required by Regional Measure 2. The Plan identifies improvements and extensions of railroad, rapid transit, and high-speed rail services for the near, intermediate, and long-terms. The Plan identifies the most promising high-speed rail routes between the Bay Area and Central Valley for purposes of informing the routing decision to be made by the CHSRA when they certify their environmental document. The final Plan will produce three plan outcomes: regional rail only, regional rail with HSR to the east, and regional rail with HSR to the south. The rail network to be tested in this scenario is regional rail with HSR. The phased strategy for implementing regional rail through the near, intermediate, and long terms is attached for information purposes. (See Table IV.1.) Note that the near-term timeframe includes improvements programmed for implementation in MTC's Resolution 3434.

   For more information on this alternative, see the "Regional Rail Study" report (September 2007) by MTC.

2. Water Transit
   The region has six water-transit routes that take passengers from various locations in the bay to San Francisco. The San Francisco Bay Area Water Transit Authority's (WTA) 2003 Implementation and Operations Plan (IOP) identifies new routes and enhancement of existing ferry services. These improvements will integrate water transit with other transit systems, attract new transit customers, and provide a new emissions monitoring protocol. New routes will include destinations to San Francisco originating from Port Sonoma, Redwood City, South San Francisco, Hercules/Rodeo, Antioch/Pittsburgh-Martinez and Richmond. A Berkeley to San Francisco via Mission Bay in Alameda is also planned. (See Table IV.2 for a list of routes included in this scenario.)

Figure 1: Freeway Performance Scenario Traffic Operations Systems

Figure 2: Freeway Performance Scenario Ramp Metering

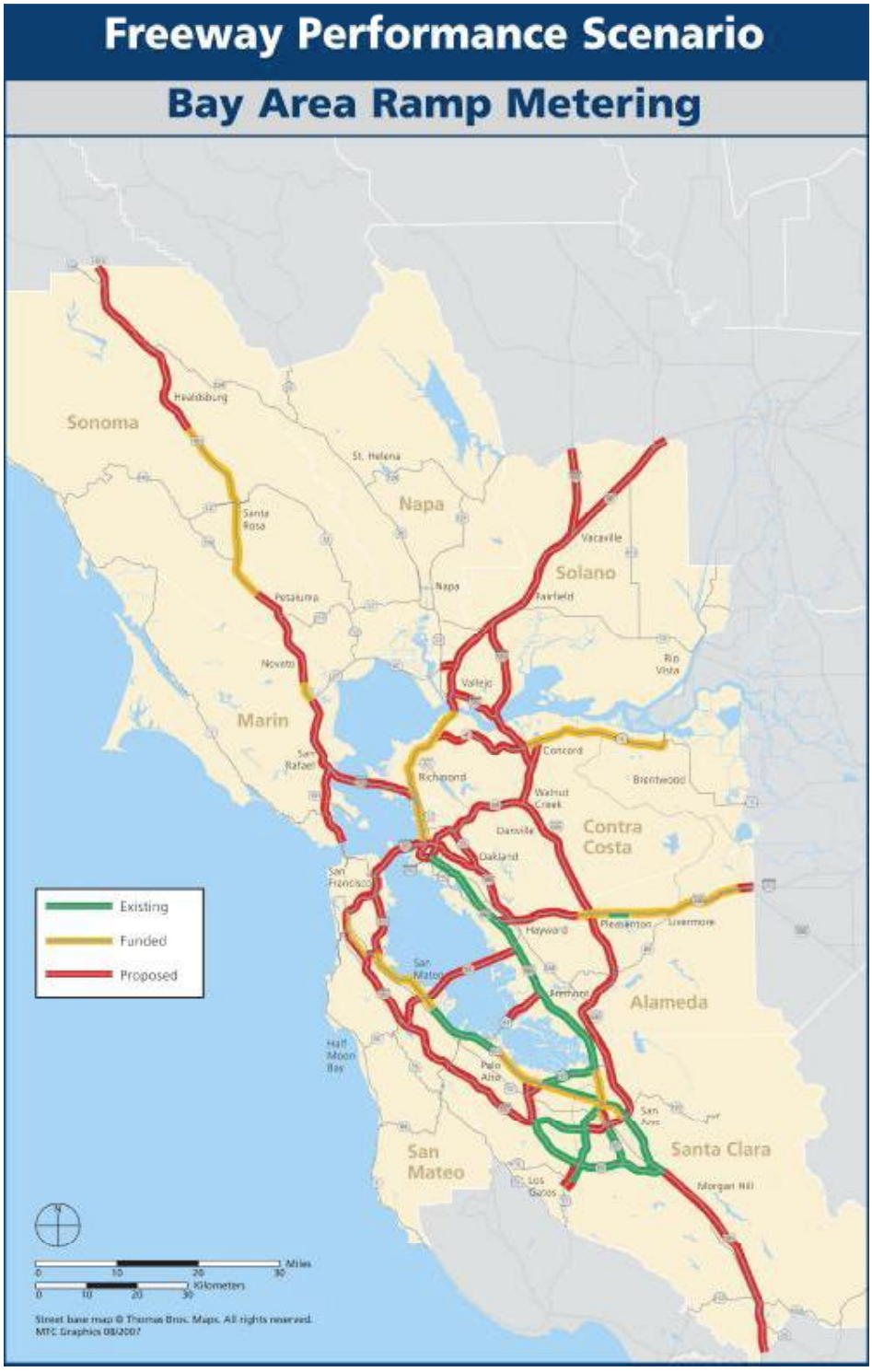

Figure 3: Freeway Performance Scenario HOV Lane Gap Closures

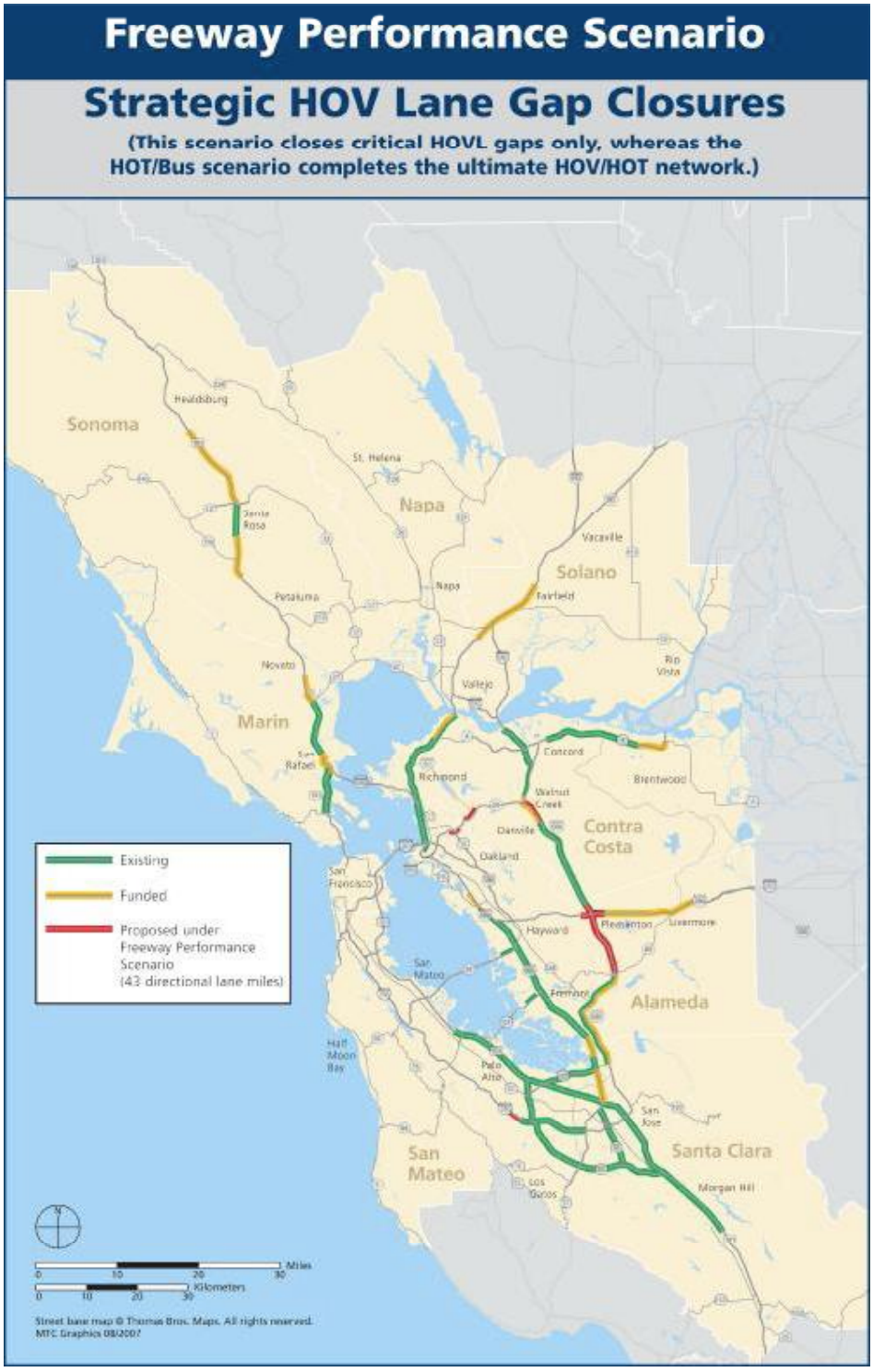

Figure 4: HOT/Bus Scenario Regional HOT Network

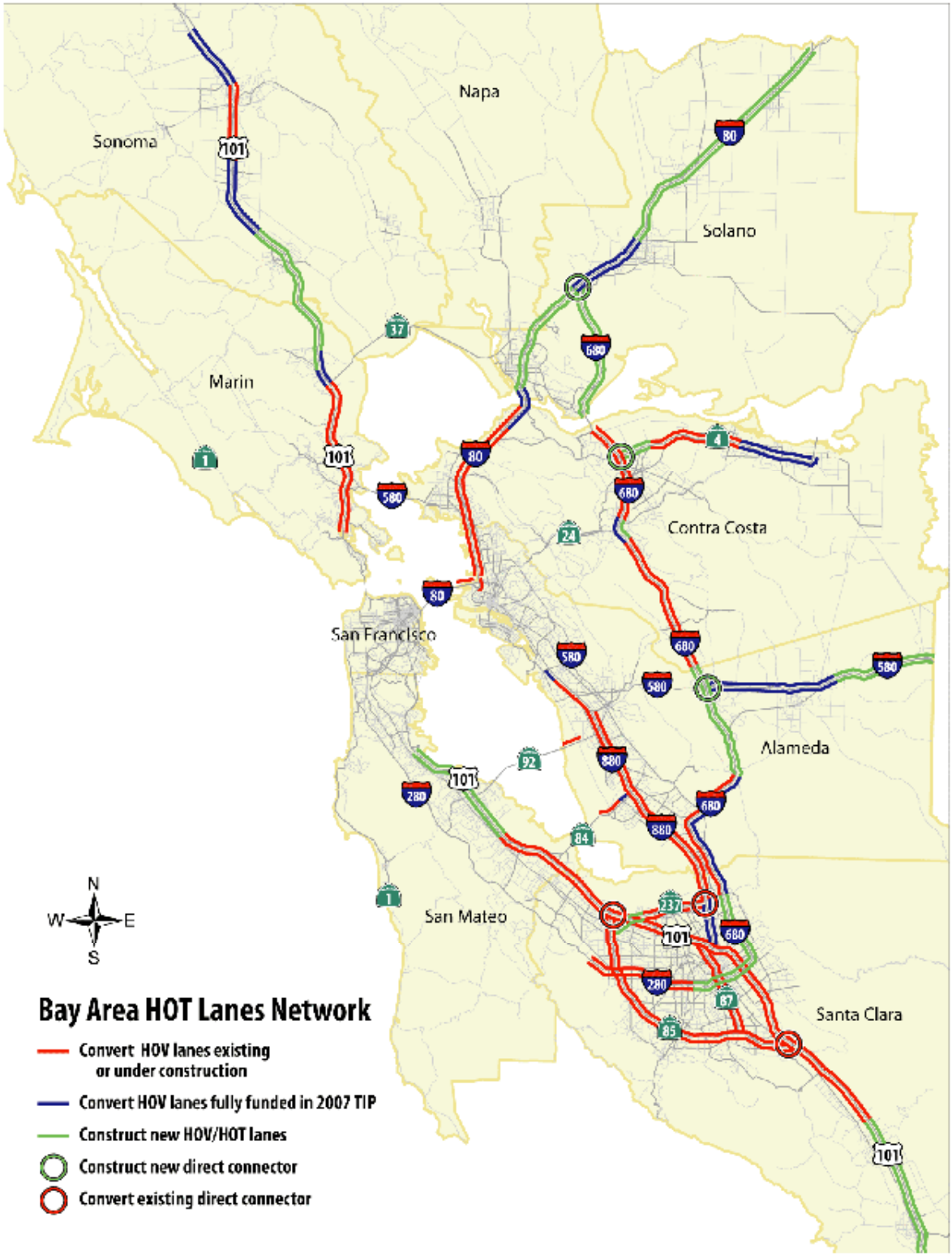

Table IV.1: Regional Rail Improvements
Regional Rail and Water Transit Scenario

The Regional Rail Plan recommends the following services and improvements for regional rail without high-speed rail. For purposes of this scenario, these regional rail improvements will be augmented as appropriate to accommodate high-speed rail over both Altamont Pass and Pacheco Pass.

BART – Reinvest in existing system to improve reliability and make the following improvements:

- Improve Core Capacity by making modifications to vehicles and stations as well as track and signals to accommodate passenger growth over the long term
- Implement connectivity improvements to connect BART with standard railroad services and regional bus lines in various corridors including a one-station extension to an intermodal with ACE at Isabel/Stanley
- Construct 4th track through Oakland to facilitate throughput and improve transfer convenience between East Bay and Transbay lines
- Develop Infill stations at various locations keyed to local land use opportunities in accordance with BART station planning policies
- Further define "Metro" service plan to increase capacity, coverage and reliability to inner Bay Area including the Oakland - Transbay – San Francisco zone
- Pursue construction of a second Bay Crossing with new subway line to improve coverage to San Francisco in the long term (paired with rail tunnel)

The Transbay Tube under San Francisco Bay is the backbone of the system, with a throughput of 24-27 trains in each direction during the peak hour. Baseline improvements would improve service reliability and increase capacity of transbay car fleet with operation on 120-second headways. The Regional Rail Plan includes the provision of a second tube and San Francisco subway to relieve the existing tube.

Regionally, BART currently operates five lines as follows:

- Pittsburg/Bay Point ↔ Daly City: Service is provided on weekdays every 15 minutes early mornings, during peak periods, midday and evenings. Service is provided every 20 minutes late evenings and all day Saturdays and Sundays.
- Richmond ↔ Daly City: Service is provided on weekdays every 15 minutes during peak periods and midday and on Saturdays every 20 minutes during peak periods and midday. No Sunday service.
- Dublin/Pleasanton ↔ Millbrae: Service is provided on weekdays every 15 minutes early mornings, during peak periods, midday and evenings. Service is provided every 20 minutes late evenings and all day Saturdays and Sundays.
- Fremont ↔ Daly City: Service is provided on weekdays every 15 minutes during peak periods and midday and on Saturdays every 20 minutes during peak periods and midday. No Sunday service.
- Fremont ↔ Richmond: Service is provided on weekdays every 15 minutes early mornings, during peak periods, midday and evenings. Service is provided every 20 minutes late evenings and all day Saturdays and Sundays.

The Baseline anticipates reductions in headways to provide 12-minute service on all regional lines. In the longer term, in conjunction with the Regional Rail Plan, BART is considering development of a "Metro" service plan which would further reduce headways in the inner core to as low as 3-5 minutes depending upon the number of routes present.

- **US 101 North** – Implement SMART project; service plan in the early years will have trains operating on 30-minute headways during peak periods with an approximate 90-minute schedule between Larkspur and Cloverdale. Make capacity and operational improvements over the long term to support 20-minute peak headways and higher ridership levels.

- **North Bay** – Preserve corridor in near term and develop north-south and east-west services using standard equipment in the long term with service frequencies on each route of approximately 60 minutes throughout the day with timed transfers at key locations.

- **I-80 & East Bay** – Expand the East Bay rail network from San Jose to Sacramento to 3 tracks with 4 track sections from Oakland to Richmond and in Solano County to support operation of standard higher speed railroad equipment compatible with freight traffic.

  Current Capitol Corridor schedules provide approximate 60-minute headways during peak periods and shoulders of peak periods with approximately 190-minute running time in the Sacramento – Oakland segment and variable headways (14 trains daily) with approximate 70-minute running time Oakland to San Jose. Baseline improvements will reduce headways Sacramento – Oakland segment to approximately 40 minutes with 90-minute headways Oakland – San Jose. Regional rail plan improvements will further reduce aggregate headways Sacramento – Oakland to as low as 15 minutes and will reduce travel time between Sacramento and San Jose to 149 minutes. Some of the service in the inner East Bay may be provided by shorter distance trains operating between Union City and Hercules.

- **Transbay** – Provide near term investments in BART Core Capacity including provision of higher-capacity cars, track and signaling and operational improvements; provide new transbay tube and San Francisco BART line paired with rail tunnel in long-term future.

  Currently, the maximum number of trains operating in the peak hour is 27 or 28. Baseline improvements will support reliable headways of 2 minutes in existing tube. The Regional Rail Plan includes a second tube and San Francisco line to distribute passengers and relieve overcrowding on the existing tube.

- **Peninsula** – Expand Caltrain to 3 or 4 tracks where feasible and operate with lightweight electric multiple-unit equipment to for rapid acceleration and frequent express and local service on the Peninsula.

  Current service plan includes a mix of locals, limited stop trains and "Baby Bullet" express trains with aggregate headways of approximately 15 minutes during peak periods and 30 minutes off peak. Locals operate on approximate 95-minute schedules and express trains on approximate 60-minute schedule. Baseline improvements to the service plan will add trains to reduce aggregate headways to 10 minutes peak period and 20 minutes off peak. The Regional Rail plan anticipates the operation of additional trains to resulting in 7-1/2 minute headways during peak periods and 15 minutes off peak.

- **South Counties** – Caltrain currently operates 6 daily trains to Gilroy. Baseline improvements will enable an operating plan

with 2-hour headways in the peak period, peak direction of travel. The Regional Rail Plan includes extension of service to Salinas with further expansion of rail services in South Bay cities using standard equipment to provide rail connections to Monterey and Santa Cruz. Approximate hourly service would be provided on all lines with timed transfers at key locations.

- **Dumbarton** – The Baseline service includes approximately two trains per hour operating between Union City and the Peninsula. The Regional Rail Plan includes provision of separate passenger-only trackage to Union City to support operation of lightweight compatible with Peninsula train operations allowing Dumbarton trains to interline with Peninsula services. Peak period trains would operate at 30-minute headways between Union City and the Peninsula with hourly service throughout the day.

- **Tri Valley / I-680** – The existing ACE schedule includes 8 daily trains between Stockton and San Jose operating westbound in the am and eastbound in the pm. Trains operate on approximate 135 minute schedule. The Baseline improvements assumes the addition of trains resulting in 30 minute headways in peak travel direction only. Regional Rail plan would expand the Altamont and Tri Valley corridor lines to improve service reliability by adding trackage to the existing UPRR line and/or putting segments of the abandoned SPRR back in service to support expanded and improved passenger service along the ACE rail corridor and to accommodate regional freight trains; develop regional bus options in I-680 corridor. Hourly service would be provided in both directions with 30 minute service for peak period peak direction trains with an approximate 100-minute running time between Stockton and San Jose.

- **Central Valley** – Currently Caltrans Division of Rail operates 8 long haul trains daily between Oakland and Bakersfield with 4 long haul trains daily between Sacramento and Bakersfield. The Division of Rail is currently revising its long range plan. The Regional Rail plan includes expansion of regional service in the Central Valley to provide a regional corridor service between Sacramento and Merced over the long term, interlined with ACE services and complementing the San Joaquin long haul trains. Regional trains would operate on hourly schedules between Merced and Sacramento. Additional trains would operate from Modesto to Oakland or San Jose also on an hourly schedule resulting in 30-minute service over Altamont Pass between the San Joaquin Valley and the Bay Area.

High-Speed Rail – Altamont with Pacheco

- **Altamont with Pacheco** – With a higher investment in Bay Area segments, high-speed trackage could be developed in both the Altamont Pass and Pacheco Pass. Northern California regional services would be primarily routed over Altamont and statewide trains from the south would be routed over Pacheco. With this option, four track sections would not be required. This would result in reduced cost compared to development of both segments with four track sections and would substantially reduce the right-of-way requirements at tight spots as well as reduce some of the adjacency impacts where the alignment would run through developed areas (most notably through Tracy, Livermore, Pleasanton and Fremont along the Altamont alignment and thorough Gilroy, Morgan Hill and San Jose along the Pacheco alignment.) Operating plans could be developed to include some "limited stop" service between Sacramento and Bay Area cities via Altamont in conjunction with regional trains making all stops. Although this solution would be the highest cost, it would combine the travel time advantages of both routes and would retain the high level of service to all three Bay Area population center for statewide trains operating from the south

Table IV.2: Ferry Service Improvements
Regional Rail and Water Transit Scenario

Based on Water Transit Authority 2003 Implementation and Operations Plan

Operator	Route Name	Existing or New	End Points	One-way Trip Time (min)	Peak Headway (min)	Off-Peak Headway (min)
City of Alameda	"Alameda/Oakland-SF"	Existing	**Alameda/Oakland/San Francisco**	22	22	28
City of Alameda/Harbor Bay	"Harbor Bay-SF"	Existing	**Harbor Bay/San Francisco**	27	28	-
Baylink	"Vallejo-SF"	Existing	**Vallejo/San Francisco**	57	22	28
Golden Gate Ferry	"Sausalito-SF"	Existing	**Sausalito/San Francisco**	23	22	28
Golden Gate Ferry	"Larkspur-SF"	Existing	**Larkspur/San Francisco**	36	20	28
Blue and Gold Fleet*	"Sausalito-SF"	Existing	**Sausalito/San Francisco**	20	-	28
Blue and Gold Fleet*	"Tiburon-SF"	Existing	**Tiburon/San Francisco**	21	22	28
Water Transit Authority	"Antioch/Martinez-SF"	New	**Antioch/Pittsburg/Martinez/SF**	95	28	40
Water Transit Authority	"Berkeley-SF"	New	**Berkeley / San Francisco**	28	22	32
Water Transit Authority	"Hercules-SF"	New	**Hercules/ San Francisco**	41	28	40
Water Transit Authority	"Oakland to South SF"	New	**South San Francisco / Oakland**	32	24	30
Water Transit Authority	"Oakland to South SF"	New	**Harbor Bay/South San Francisco**	37	28	-
Water Transit Authority	"Richmond-SF"	New	**Richmond/San Francisco**	33	24	32
Water Transit Authority	"Redwood City-SF"	New	**Redwood City/San Francisco**	51	28	28
Water Transit Authority	"Redwood City-SF"	New	**Harbor Bay/Redwood City**	60	28	-
Water Transit Authority	"Treasure Island-SF"	New	**Berkeley/Treasure Island**	23	28	-
Water Transit Authority	"Treasure Island-SF"	New	**Oakland/Treasure Island**	23	28	-
Water Transit Authority	"Treasure Island-SF"	New	**Treasure Island/San Francisco**	16	20	24
Water Transit Authority	Further Study	Further Study	**Martinez/San Francisco**	57	28	40
Water Transit Authority	Further Study	Further Study	**Port Sonoma/San Francisco**	59	30	34
Water Transit Authority	Further Study	Further Study	**Moffett Field/ San Francisco**	58	30	-

V. TRIP GENERATION/TRIP DISTRIBUTION FORECASTS (Tables D.1 – D.7)

This section discusses the county-to-county trip table forecasts, average trip length, and trip length frequency distribution forecasts. These are standard outputs from trip distribution forecasts, and also include the "trip generation" forecasts in terms of county and regional-level trip ends.

County-to-county home-based work (HBW) trips for four analysis periods: 2000, 2006, 2035, and the 2035 Land Use Alternative, are provided in Table D.1. These first two tables are the only place where we're summarizing year 2000 data. This is because we want to show the absolute decrease in home-based work trips between 2000 and 2006, due to the 2000/06 economic recession. The county-level trip ends are at the end of the second page of table D.1.

Note that only three sets of person trip table forecasts are used in this study, for sake of comprehension. The 2006 person trips are only used for the 2006 base year model simulation. The 2035 base person trips are used in eight of the eighteen-year 2035 forecasts. The 2035 Land Use Alternative person trips are used in the balance (10) of the eighteen total future year 2035 forecasts.

The important item to note in the county-to-county work trips is the higher intra-county work trip share in the Land Use Alternative compared to the standard 2035 forecast. In 2006, 69.8 percent of all Bay Area work trips were intra-county (workers living-and-working in the same county). By 2035, we're expecting this to increase to 70.3 percent. For the 2035 Land Use Alternative, we're showing this intra-county work trip share increasing to 74.8 percent. Also of importance to note, in the Land Use Alternative, is a significant reduction in the number of Bay Bridge work trips, relative to the standard 2035 forecast.

County-to-county non-work trips are provided in Table D.2. This is a total for the six non-work trip purposes included in MTC's travel model system: home-based shop/other; home-based social/recreation; non-home-based; home-based grade school; home-based high school; and home-based college. About 90 percent of all non-work trips are intra-county, compared to 70 to 75 percent of all work trips.

County-to-county total trips are summarized in Table D.3. This includes all of the intra-regional, personal trips made by Bay Area resident households.

Regional-level mean and median trip lengths, in miles, by detailed trip purposes, are shown in Table D.4. This table also summarizes the regional trips and regional person miles of travel by detailed purpose.

Average work trip lengths are projected to increase from 11.77 miles per one-way work trip in 2006 to 11.86 miles by the year 2035. This is a slight, 0.8 percent increase between 2006 and 2035. The 2035 Land Use Alternative would reduce the average work trip length by nearly 15 percent, from 11.86 miles to 10.10 miles per one-way work trip. Median work trip lengths, interestingly, are projected to decrease between 2006 and 2035, from a 7.01 median distance to a 6.74 median distance. The Land Use Alternative would further reduce the median work trip length by another 16 percent, to 5.65 median work trip length.

Average work trip lengths typically increase with increasing household income levels. This is clearly the pattern for the year 2006 forecast, with average commute lengths for low-income commuters at 10.43 compared to 12.89 miles/commute for highest income commuters.

For the 2035 standard forecast, the very high (13.15) average work trip length for lowest income commuters is a concern, and is probably a problem in how we developed the total employment by income level estimates, as input to the 2035. The 2035 Land Use Alternative tends to correct this problem, but the mean commute length for the lowest income commuters appears too high relative to the low-medium household workers.

In contrast, the median work trip lengths by income level are more sensible, showing a steady increase in median work trip length with increasing income levels.

Non-work trip lengths are typically about half as long as work trips. Overall, the average trip length for intra-regional personal trips is projected to increase from 6.79 miles in 2006 to 6.95 miles by the year 2035, a modest 2.4 percent increase. The 2035 Land Use Alternative would decrease the overall trip length to 6.37 miles, 8 percent less than the standard 2035 forecast, as well as shorter than the base year 2006 estimate (6.79 miles for all trips).

The last part of Table D.4 is useful in showing the overall distribution of person miles of travel by trip purpose. This is useful in showing that the plurality of person miles of travel (PMT), in the Bay Area, is for work trips, at 40.1 percent of the PMT in 2006. This is projected to increase to 45.6 percent (work trip PMT as a share of total trip PMT) by the year 2035.

Trip length frequency distributions are quite useful when exploring the potential for non-motorized trip making (Table D.5.) It is interesting to note that 10 to 14 percent of work trips are less than one mile, compared to 25 to 26 percent of all non-work trips. The number and share of short trips is significantly higher in the 2035 Land Use Alternative compared to either the 2006 base year or 2035 standard forecast. At the opposite end of the trip length spectrum, we are showing over 19 percent of home-to-work trips will exceed 20 one-way miles, for 2006 and the 2035 standard forecast. This would decrease to just under 16 percent for the 2035 Land Use Alternative.

The last way we analyze trip distribution forecasts is to examine the average (mean) trip length by the origin or destination of the trip, by geographic area. (Median trip lengths and trip length frequency distributions are not produced by geographic area, since this isn't readily available as an output from the standard travel forecasting software systems in use.) Data on average work trip length by the MTC 34 superdistricts-of-residence, and county-of-residence are summarized in Table D.6. The comparable data by the MTC 34 superdistricts-of-work, and county-of-work, are in Table D.7.

The longest commute lengths are for the workers residing in eastern Contra Costa County (MTC superdistrict #24). We're showing the one-way work trip length decreasing from 19.79 miles in 2006 to 17.31 miles by the year 2035 for these workers. The shortest commutes are for the workers residing in greater downtown San Francisco (MTC superdistrict #1), with average work trip lengths at about 4.2 to 4.3 miles across all alternatives.

For Bay Area counties, Solano County resident workers have the longest one-way commute lengths, projected to increase from 15.7 miles in 2006 to 16.6 miles by the year 2035.

Examining the work-end of all home-based work trips, commuters to downtown San Francisco (MTC superdistrict #1) have traditionally had the longest average trip lengths, at 15.5 miles in 2006. This is projected to increase to 17.8 miles by the year 2035.

The very high forecasts for average work trip lengths for workers commuting to jobs in Sonoma County are a concern. This is because of a very large increase in projected jobs in Sonoma County between 2006 and 2035 (224 to 344 thousand jobs, a 54 percent increase); compared to a more modest increase in projected employed residents workers residing in Sonoma (290 to 322 thousand workers, a 22 percent increase). This means that we will have more workers commuting from outside Sonoma County (Marin, Napa, Solano) to jobs in Sonoma.

VI. MODE CHOICE FORECASTS (Table E.1 – E.23)

This is the first section of the report that shows the detailed forecasting results for the one base year (2006) alternative and the eighteen-year 2035 alternatives. The first eight tables (Table E.1 – E.8) show the regional level forecasts for all nineteen forecasts for particular regional trips by mode. Tables E.1 through E.4 show the "total" trips (work plus non-work) for particular means of transportation; and Tables E.5 through E.8 show the "home-based work" Trips for particular means of transportation. Each of these first eight tables shows the regional "modal share" associated with that particular trip purpose and travel mode.

Regional vehicle driver trips by all alternatives is summarized in Table E.1. Daily vehicle trips are projected to increase from 13.1 million trips per average weekday in 2006 to between 15.9 and 18.2 million trips per average weekday by the year 2035. For the year 2035 alternatives, total vehicle driver trips is minimized in the composite "HOT/Express + Local Bus + Land Use + Pricing + Telecommuting" alternative (15.9 million vehicle trips/day); and maximized in the Freeway Performance Initiative alternative (18.2 million). The vehicle driver modal share ranges from 55.1 percent of all trips in the aforementioned composite "HOT/Express…." Alternative to a high of 62.4 percent in the Freeway Performance Initiative.

The investment scenario that has the most impact on reducing vehicle driver trips is the HOT/Express + Local Bus Alternative. The Freeway Performance Initiative increases the overall vehicle trips since it expands the per-lane carrying capacity of the regional highway network, and doesn't include an improved transit system to counteract the increases in highway capacity.

The pricing sensitivity analyses tend to decrease the overall vehicle trips by 9 percent, across all investment scenarios.

The land use sensitivity analyses tend to have slightly higher overall vehicle trips than the base forecasts; but slightly lower vehicle driver modal shares than the base forecasts. This is because there is more total population (and more total trips) in the Land Use Alternative compared to the base forecasts, and the modal shares for vehicle trips are lower due to the more efficient location of the population in the Land Use Alternative.

Regional transit trips by all alternatives are included in Table E.2. Regional transit trips are projected to increase from 1.1 million average weekday daily transit trips in 2006 to a range of 1.8 to 2.9 million daily transit trips by the year 2035. For the year 2035 alternatives, regional transit trips is minimized in the Freeway Performance Initiative alternative (1.75 million) and maximized

in the “HOT/Express + Local Bus + Pricing + Land Use” alternative (2.87 million). Overall transit market share is projected to increase from 5.3 percent of all trips in 2006 to 76.0 to 9.7 percent of all trips by the year 2035.

The investment scenario that provides the most transit trips is the HOT/Express + Local Bus Alternative, followed closely by the Regional Rail + Ferry Alternative.

The pricing sensitivity tests increase the overall transit ridership by 30 to 35 percent. This is due to the overall increase in the auto trip costs, relative to transit trip costs.

The Land Use Alternative transit trips are higher than the base case forecasts, but lower than the pricing tests. The combined “pricing plus land use” has the greatest impact on increasing regional transit tripmaking levels. On the other hand, adding a “telecommuting” reduction to work trips will also have an impact on reducing transit trips, relative to the “pricing plus land use” composite alternatives.

Regional bicycle trips, all purposes combined, are provided in Table E.3. Regional bicycle trips are projected to increase from 361 thousand bicycle trips per average weekday to between 445 thousand and 817 thousand bicycle trips per day by the year 2035. Bicycle modal shares are projected to change from 1.7 percent of all trips in 2006 to a range of 1.5 to 2.8 percent of all trips by the year 2035.

Bicycle (and walk) trips tend to be highest in the base investment scenarios. This is because the other investment scenarios provide incentives for travelers to either switch to car (the Freeway Performance Initiative) or transit (the HOT/Express + Local Bus and the Regional Rail + Ferry alternatives.)

The pricing sensitivity tests have a significant impact on bicycle trips. The pricing sensitivity tests increase bicycle travel by 70 to 72 percent, relative to the base pricing assumption alternatives. This is because a large number of short auto trips are faced with additional parking costs that make bicycling (and walk) better choices. Bicycling trips are maximized in the combined “land use + pricing” sensitivity analyses. This is due to the shorter overall average trip lengths in the Land Use Alternative; and the higher auto trip costs in the pricing tests.

Regional walk trips, all trip purposes combined, are shown in Table E.4. These are “walk only” trips and exclude walking to and from transit stops, or to and from parking garages for auto trips. Regional walk trips are projected to increase from 2.17 million trips per average weekday in 2006 to between 2.83 and 4.59 million walk trips per day by 2035. Regional walk trip market shares are projected to change from 10.2 percent walk share in 2006 to a range of 9.7 to 15.8 percent walk share by 2035.

By investment scenario, walk trips are minimized in the HOT/Express + Local Bus Alternative, and maximized in the Baseline alternative. This is because the HOT/Express alternative does a very good job in increasing transit trips, and reducing trips by other modes (auto, bicycle, walk).

The pricing sensitivity tests also have a significant impact on walk trips. These increased auto costs tend to increase regional walk trips by 50 to 51 percent. The greatest overall increases are shown in the combined “land use + pricing” sensitivity analyses, with overall walk trip shares increasing to 15.4 to 15.8 percent walk shares.

The following four tables, E.5 through E.8, summarize the regional home-based work (commuting) trips by means of transportation across all alternatives.

Regional drive alone work trips are projected to increase from 3.5 million trips in 2006 to a range of 4.5 to 5.5 million trips by the year 2035 (Table E.5). The work trip drive alone shares are projected to decrease from 71.0 percent in 2006 to a range of 61.0 to 68.7 percent in 2035.

Regional transit work trips are projected to increase from 512 thousand average weekday trips in 2006 to a range of 910 to 1,227 thousand trips per weekday by 2035 (Table E.6). Transit work trip shares are projected to increase from 10.4 percent in 2006 to a range of 11.1 to 15.8 percent by 2035.

The pricing sensitivity tests have a more moderate impact on transit work trips compared to total transit trips. The pricing tests increase the transit work trips by 18 to 20 percent (compared to a 30 to 35 percent increase in transit trips by all trip purposes combined).

Regional bicycle commuting trips are projected to increase from 57 thousand average weekday daily trips in 2006 to a range of 108 to 194 thousand bicycle trips/day by 2035 (Table E.7). Work trip bicycle shares are projected to increase from 1.2 percent in 2006 to 1.4 to 2.4 percent by 2035.

Regional walk-only commute trips are forecast to increase from 161 thousand average weekday daily trips in 2006, to 263 to 495 thousand daily walk trips by 2035 (Table E.8). Work trip walk shares are projected to increase from 3.3 percent in 2006 to 3.4 to 6.1 percent by the year 2035.

The next set of eight tables (Tables E.9 – E.16) provides detailed information on county-to-county home-based work and total trips, for just two alternatives: the 2006 base year, and the 2035 base line forecasts. The county-to-county trips by purpose and mode are followed by the county-to-county share of trips by purpose and mode, which leads to each alternative with at least eight pages of detailed mode choice results. [Other alternatives could be processed as the need arises, but for comprehension sake we limited the details to just two of the nineteen discrete travel forecasts.]

The following set of five tables (Tables E.17 – E.21) provide a new glimpse at regional mode forecasts by examining the work trip and total trip forecasts by a trip length frequency distribution, by means of transportation. This is provided for five alternatives: 2006 base year; 2035 baseline; 2035 base +pricing; 2035 base + land use; and 2035 base + pricing + land use.

The most interesting aspect of this set of tables is the very high non-motorized trip shares for very short trips of less than one mile. Work trip walk shares for trips less than one mile range from 24.0 percent in 2006, to 24.3 percent in the 2035 baseline, to a high of 35.4 percent in the 2035 base + pricing + land use alternative. Total trip walk shares for trips less than one mile range from 30.1 percent in 2006, to 29.2 percent in the 2035 baseline, to a high of 45.1 percent in the 2035 base + pricing + land use alternative.

The other significant trend to note is the increasing share of work trip carpools for the longest work trip lengths, say, greater than 20 miles from home-to-work.

[One modest concern is the number of very long (> five mile) one-way walk trips for either work or total trip purposes. We are probably overestimating long walk trips and underestimating short walk

trips. A possible solution is a very high modal constant penalty associated with longer distances, and a somewhat modest modal constant bonus associated with shorter distances. This is a model calibration issue that MTC staff might be able to address in early 2008. This appears to be much less of an issue for bicycle trips.]

[Technical footnote: Note that the number of person trips at the different distance cohorts is changing slightly between alternatives, for example, comparing the base + pricing to the baseline forecast. This is because we are using different zone-to-zone travel distance datasets to reduce the trips by mode to distance distributions. This could be eliminated by using one particular set of zone-to-zone distances for any particular trip distribution forecast, as was done in the section on trip distribution forecasts.]

The last two tables in this mode choice section are the detailed, regional mode choice forecasts for all alternatives by detailed trip purpose and detailed travel mode. The detailed trips are included in Table E.22; the detailed modal shares are provided in Table E.23. The table is organized in a set of three pages per each set of alternatives: the first page of a set shows the home-based work trips by mode by income level; the second page of the set shows the non-work trips by mode; and the third and final page of each set shows the school trip totals and the overall totals for each set of alternatives.

Note that the income levels shown in Table E.22 and E.23 are in 1990 constant dollars.

These sets of regional mode choice forecasts by detailed trip purpose and travel mode are one of the key components of reviewing each of the forecasts, and are used in determining whether additional cycles (mode choice, peak traffic assignment) are required to better "equilibrate" each of the forecasts. The "equilibration" process is necessary to ensure consistency between input travel times and output travel times within any particular alternative.

VII. TRAFFIC CHARACTERISTICS (Tables F.1 – F.9)

One of the last stages in standard travel demand forecasting is trip assignment: taking zone-to-zone vehicle driver trips and using the software to allocate these trips to the best route (traffic assignment); and taking the zone-to-zone transit passenger trips and using the software to allocate transit trips to the best transit stops and transit routes (transit assignment).

This study does not produce transit assignment results, with the exception of the "HOT/Express + Local Bus" alternative (produced by MTC's consultant, Cambridge Systematics, Inc., as a work product). This is because the focus of this study is on the impact of these investment strategies on highway performance, air quality, and affordability. Detailed information on future year ridership by operator is not currently available. Detailed information on the "HOT/Express + Local Bus" transit assignments are included as a Section "J" appendix to this report.

The first three tables in this section summarize data by vehicle miles of travel (VMT). Gross regional VMT, by the nineteen alternatives, is shown in Table F.1. VMT includes all intra-regional personal VMT, commercial travel VMT, and interregional trip VMT (travel either starting or ending outside the nine-county region.)

Regional VMT is predicted to grow between 15.2 and 31.9 percent between 2006 and 2035. The lowest estimate of 2035 VMT is for the composite "HOT/Express + Local Bus" investment alternative with "land use + pricing + telecommuting." The highest estimate of 2035 VMT is for the Freeway Performance Initiative.

VMT per capita is shown in Table F.2. This is a simple measure derived from the grand total VMT in Table F.1, divided by the respective total population value at the bottom of Table F.2. VMT per capita is predicted to increase from 19.0 in 2006 to 19.4 to 19.8, for each of the four investment scenarios. Adding either pricing or the land use sensitivity reduces the VMT per capita by about one mile per person per average weekday. Combining land use and pricing reduces VMT per capita by 1.7 miles/capita. VMT per capita is minimized in the composite "HOT/Express" bus with "land use + pricing + telecommuting" alternative, at 17.1 VMT/capita, or 10 percent less than the 2006 base year value.

Overall regional home-based work (commuting) VMT is provided in Table F.3. This is intended for analysts interested in the trip purpose with the largest share (plurality) of regional VMT in the Bay Area.

Vehicles hour of delay (VHD) characteristics, comparing all alternatives, is provided in the next set of tables (Tables F.4 – F.7). Vehicle hours of delay are calculated as the amount of excess travel time, in hours, at any time greater than free-flow travel time. There is no threshold for calculating VHD, e.g., evaluating VHD for freeways at speeds less than 35 miles per hour.

Vehicle hours of delay are also the most sensitive and elastic travel measure that is included in this study. This is because the volume-to-capacity ratios used in traffic assignment are quite sensitive to small changes in demand. For example, a 1 percent reduction in traffic demand can reduce delay by 4 to 10 percent, depending on what's the level of congestion in the "before" condition.

The starting point is the AM peak period (6:00 AM to 10:00 AM) vehicle hours of delay produced in the mode choice / traffic assignment model equilibration process. This is the normal, recurring delay included in all travel demand models. Vehicle hours of delay are predicted to more than triple between 2006 and the 2035 baseline, from 126,100 hours per average AM peak period weekday, to 423,800 hours per peak period. VHD for the investment scenarios ranges from 323 thousand hours in the Freeway Performance Initiative to 377,800 hours in the Regional Rail + Ferry Alternative. Both pricing and land use sensitivity tests have major impacts in reducing vehicle hours of delay. AM peak period vehicle hours of (recurring) delay is minimized in the composite "Freeway Performance Initiative + Land Use + Pricing + Telecommuting" test, at 12 percent VHD less than year 2006 estimates.

Average weekday daily vehicle hours of (recurring) delay are shown in Table F.5. This data is produced by multiplying the AM peak VHD by 2.87 to yield average weekday daily values. The "2.87" multiplier was derived from new MTC research on producing traffic assignments by five time periods of the day (0000-0600, 0600-1000, 1000-1500, 1500-1900, and 1900-2400). There are some unresolved issues with this five-time-period traffic assignment approach, so the simpler method of multiplying the AM peak period VHD by 2.87 was used, rather than the direct VHD from this five-time period approach.

Estimates of AM peak period vehicle hours of non-recurring (incident-related) freeway delay is provided in Table F.6. These estimates are derived from the same database included in Table F.4,

and the IDAS (ITS Deployment Analysis System) model algorithms for non-recurring freeway delay. For the family of Freeway Performance Initiative (FPI) alternatives, the unadjusted non-recurring freeway delay was further reduced by 83.2 percent to account for the Traffic Operational System (TOS) strategies intended to reduce incident-related congestion. This adjustment process is provided in the IDAS documentation. The values shown in Table F.6 are the final, adjusted estimates of AM peak period non-recurring freeway delay.

The "grand total" average weekday daily total is produced by summing the recurring delay (Table F.5) with an estimate of the daily non-recurring freeway delay (two times the values in Table F.6, to represent AM and PM peak period conditions). These "grand total" VHD values are reported in Table F.7. The range in year 2035 VHD is very wide, ranging from 36 percent less than year 2006 congestion levels to a more than tripling of 2006 congestion. The family of Freeway Performance Initiative alternatives produces significantly lower levels of congestion than the other sets.

Estimates of annual VHD per capita are produced by multiplying the average weekday estimates (Table F.7) by 365 days/year, and then dividing by the respective total population value. These estimates of annual VHD per capita are shown in Table F.8. The year 2035 annual VHD/capita rates range from a low of 13.5 hours/capita for the composite "Freeway Performance Initiative + Land Use + Pricing + Telecommuting" to a high of 66.2 hours/capita for the Baseline 2035 alternative.

The last table in this set, Table F.9, extracts the county-of-occurrence AM peak period traffic assignment results: vehicle miles of travel (VMT), vehicle hours of travel (VHT), vehicle hours of delay (VHD), and average speed; by the nineteen alternatives. The regional level VHD numbers in Table F.9 are the same as the regional VHD values shown in Table F.4. This table may be of interest to data users interested in sub-regional level traffic characteristics.

VIII. AIR QUALITY (Tables G.1 – G.6)

The focus on this air quality analysis is to provide estimates of average weekday daily mobile source, on-road vehicle emissions. MTC staff is using the latest California Air Resources Board (CARB) emissions model, EMFAC2007, operating in what is called "BURDEN" mode. The "BURDEN" mode produces mobile source, on-road emissions at the county, air basin, and regional level. Off-road mobile sources (e.g., rail, air, water) and stationary source pollutants are not covered in this analysis. This analysis includes only three pollutants: carbon dioxide (CO_2), and two sizes of particulates: $PM_{2.5}$ (particulate matter of 2.5 microns or less in diameter), and PM_{10} (particulate matter of 10.0 microns or less diameter.) Other criteria pollutants: reactive organic gases (ROG), nitrogen oxide (NOX), and carbon monoxide (CO) will be included in the full environmental impact report (EIR) for the regional transportation plan.

Note that all of the on-road, mobile source emission forecasts included in Tables G.1 through G.3 assume the introduction of an improved fuel efficiency fleet, assuming the Pavley Bill (AB 1493, 2002) is upheld in the federal courts. This assumes that 75 percent of the overall Bay Area passenger fleet is consistent with either the short-term technology or mid-range technology included in AB 1493. This is consistent with CARB's approach is evaluating the effectiveness of Pavley standards for the year 2035.

Regional carbon dioxide (CO_2) on-road mobile source emissions for all alternatives are provided in Table G.1. Unlike all of the other comparisons, the CO_2 comparison is made relative to a 1990 base year. This is because the California greenhouse gas legislation uses 1990 emissions inventories in developing short range and long-range targets.

The year 2035 CO_2 target is 40 percent less than 1990 levels, or 52,000 tons per day of carbon dioxide. Given that a gallon of gasoline produces about 20 pounds of CO_2 per gallon (due to combustion, and mixing with oxygen), this 52,000 tons per day target is equivalent to about 5.2 million gallons of gasoline per day. Dividing the 5.2 million gallons of gasoline by the 9.0 million year 2035 population yield an average of 0.58 gallons of gasoline per day, per person, as our target.

The high end forecast is 101,400 tons per day of CO_2, for the baseline alternative. This is equivalent to about 10.14 million gallons per day, or about 1.1 gallons of gasoline per person per day. There is a fairly narrow range of CO_2 values for the investment alternatives, ranging from 92,400 tons/day for the Freeway Performance Initiative to 101,400 for the Baseline alternative.

The low-end estimate is 79,600 tons/day of CO_2, for the Freeway Performance Initiative with pricing, land use, and telecommuting.

Regional on-road mobile source very small particulates ($PM_{2.5}$) are summarized in Table G.2. The regional target for $PM_{2.5}$ is 10 percent less than the year 2006 base estimate, or 18.0 tons per day (tpd). Future year forecasts for $PM_{2.5}$ range from a low of 22.8 tons per day in the composite FPI alternative (27 percent above the target) to a high of 26.2 tons/day in the baseline alternative (45.6 percent above target).

Regional on-road mobile source small particulates (PM_{10}) are summarized in Table G.3. The regional target for PM_{10} is 40 percent less than the year 2006 base estimate, 37.9 tons per day. Future year forecasts for PM_{10} range from a low of 83.8 tons/day in the composite "HOT/Express + Local Bus" alternative to a high of 95.6 tons/day in the baseline alternative. All of the forecasts are 121 to 152 percent above the fairly ambitious target of 37.9 tons/day.

As an extra piece of information, data on on-road mobile source fuel consumption is provided in Table G.4. These estimates include diesel consumption as well as gasoline consumption.

The detailed composition of particulate matter from mobile sources is described in Table G.5. This table is useful in showing the a majority of $PM_{2.5}$ and PM_{10} particulate emissions are "re-entrained road dust." The "re-entrained road dust" is particulate matter that is kicked up by vehicles traveling on paved and unpaved roads, including dust related to road sanding, sweeping, and de-icing compounds on the roads. Re-entrained road dust kicked up by passenger vehicles ranges from 63 to 68 percent of the $PM_{2.5}$ emissions, to 81 to 84 percent of the PM_{10} emissions (on-road mobile source) in the Bay Area.

Several sets of "off-model" alternative fuel scenarios were examined in this study (Table G.6). The "baseline" set of technology assumptions uses an 87.8 percent "Pavley-consistent" fleet (see footnote on Table G.6), a 10.6 percent share of older, pre-2009 model year vehicles; and 1.6 percent electric vehicle share. This is consistent with CARB methodologies and assumptions for overall vehicle fleet mix. Scenarios "A" and "B" in Table G.6 show the conventional fuel economy (27.7 MPG) and regional CO_2 emissions for the Baseline 2035 and the HOT/Express + Local Bus

+ Land Use + Pricing (HOTELUPR) alternative. We then tested this HOTELUPR alternative with different mixes of technology in order to achieve the 52,000 tons per day target. These scenarios tested higher shares for Pavley-consistent conventional gasoline vehicles; to higher shares of electric vehicles, hydrogen fuel cell vehicles; and plug-in hybrid vehicles.

The results indicate that a mix of conventional and new technology would be needed to attain regional carbon dioxide emission targets.

IX. TRANSPORTATION & HOUSING AFFORDABILITY (Tables H.1 – H.10)

Transportation and housing affordability is included in this section. The target is that the share of household income – for low- and lower middle-income households – spent on transportation plus housing is 10 percent less than 2006. The share of mean income spent on housing was produced by ABAG, and is reported in Table H.4. Share of mean income spent on transportation costs was developed by MTC, and is reported in all tables.

Under Projections 2007, ABAG is assuming that housing prices will keep pace with inflation. So, no change in the share of income spent on housing is assumed for 2035. In the alternative land use alternative, ABAG assumed direct housing subsidies to low-income and low middle-income households, to decrease the share of income spent on housing by 9 percent. The estimated required subsidy is 1.39 billion per year for low-income households, and 623 million per year for lower middle-income households.

The MTC transportation cost methodology relied on MTC forecasts of work trips, by income level, by means of transportation, to build up estimates of annual auto operating costs and annual public transit expenditures. MTC vehicle availability forecasts, again by income level, were used to build up estimates of annual auto ownership costs. Data from the U.S. Bureau of Labor Statistics (BLS) Consumer Expenditure Survey (CEX) were used to ensure the reasonableness of MTC estimates of transportation costs by income level.

Bottom line summary tables are included as Tables H.1 through H.4. Overall transportation costs as share of household income, for low-income households (less than $40,000 in 2007 constant dollars) is shown in Table H.1. These shares range from a low of 19.5 percent in the baseline networks plus land use scenario, to a high of 64.7 percent of income (spent on transportation) in the baseline network with pricing. All of the pricing scenarios show significantly higher shares of income spent on transportation compared to the baseline or land use scenarios.

Overall transportation costs as a share of household income, for the “lower middle-income” group, is shown in Table H.2. Future year shares of mean income range from 16.4 percent in the baseline network plus land use scenario to a high of 32.1 percent of income in the baseline network plus pricing scenario. All four of the investment scenarios with the land use alternative achieve the 10 percent reduction in transportation cost share.

The weighted average for the low-income plus lower middle-income groups is provided in Table H.3. Housing cost shares are then added to transportation cost shares to yield overall transportation plus housing cost shares as a percent of income for low and lower middle income households (Table H.4). The data in Table H.4 represent the final summary table for the affordability analysis, with respect to affordability targets. The target is 60.7 percent of income

spent on transportation plus housing. This target is achieved in all of the investment scenario plus land use alternative forecasts, and is very close to attaining the target in the investment alternatives without either land use or pricing.

Detailed calculations for transportation affordability by all four income levels, across all alternatives, is summarized in Tables H.5 through H.8. This provides a breakout by the three types of transportation costs: auto ownership costs, auto operating costs, and transit fares.

Detailed calculations for auto ownership costs for the base year 2006, the standard 2035 and the 2035 alternative land use, are summarized in Table H.9. Auto ownership costs per vehicle are derived from the U.S. Bureau of Labor Statistics Consumer Expenditure Survey. We are not assuming any real increase in auto ownership costs per vehicle between 2006 and 2035 (only that these costs will keep pace with inflation.) All of the costs included in Table H.9 (and throughout this section) are represented in current year (2007) dollar values.

The last table in this section is a summary of transportation costs by income level, derived from the Consumer Expenditure Survey data for the Western United States (Table H.10). The "gold standard" for transportation costs, as a percent of household income is the Bureau of Labor Statistics' (BLS) Consumer Expenditure Survey (CEX) program. Local Bay Area data on expenditures by income level are not available, so our estimates are compared to the Western U.S. Region data. The CEX shows that 23.8 percent of Low Income household's income is spent on transportation; we are showing 25.3 percent (for the Bay Area). For Moderate-Low Income households, the CEX is showing 18.4 percent; we are showing 19.0 percent. For Moderate-High plus High Income households, the CEX is showing 12.6 percent share; we are showing a 12.2 percent share. For the U.S. West Region, the CEX shows 15.6 percent transportation share of household income; we are showing 14.6 percent, again, for the Bay Area.

The CEX is also publishing a 10.9 percent transportation costs-as-share of income, for the San Francisco Bay Area, for all consumer units. This is quite low compared to the 15.6 percent that the CEX reports for all of the Western U.S. These CEX values appear contradictory, and we're placing more emphasis on the Western U.S. data, since that's the only CEX data that we can get by household income level.

The independent study *"A Heavy Load: The Combined Housing and Transportation Burdens of Working Families"* (Center for Housing Policy, October 2006), reports that, in the San Francisco Bay Area, 27 percent of income is spent on transportation, by the "working poor." (Their analyses are based on the 2002 CEX, the Census 2000, and modeled data) Our estimates of 25.3 percent are based on the 2004/05 CEX for "total low income households." Our concern is that "working poor" definition is quite restrictive, and that a majority of our "low income" households are the "non-working poor" (e.g., low income retired or unemployed households.)

Note that the "Public Transportation" expenditures, as defined in the CEX, include airfares (which is perhaps 60-65 percent of total "Public Transportation" expenditures). For our analyses, we are only including the local public transit costs. We are not estimating share of income spent on airfare or other inter-city transportation costs.

X. COST-EFFECTIVENESS (Table I.1-I.2)

The relative cost-effectiveness of the investment scenarios is presented in Table I.1. Cost-effectiveness measures reflect the direct public investment per reduction in the emissions and travel criteria of interest: CO2, PM2.5, PM10 vehicle miles of travel (VMT), and vehicle hours of delay (VHD). The measure reflects the annual reductions in year 2035 compared to the Baseline Investment Scenario.

On the cost side, the measure reflects the annualized capital cost and the incremental net annual operating and maintenance (O&M) cost associated with the infrastructure investments. The annualized capital cost is the total capital cost annualized (or discounted) over the expected life of the scenario components. The values used for expected life are based on industry standards, guidance from FTA, and MTC and Caltrans planning assumptions (e.g., expected life of a rail car is 30 years, that of a ferry is 20 years). The analysis uses a 4% real discount rate. The net annual O&M cost is the total annual operating and maintenance cost less any new fare revenue (or in the case of HOT lanes, toll revenue), associated with the improvement.

Of the three scenarios, the Freeway Performance scenario is the most modest in cost at $600 million for capital and $24 million a year for O&M. The cost of HOT and Bus scenario lies in the middle at $9.5 million for capital and $600 million a year for net O&M. And the Rail and Ferry scenario can be considered high-cost at $64 billion for capital and $1.2 billion a year for net O&M. The major cost components of each scenario are shown in Table I.2.

Two sets of cost-effectiveness metrics were calculated. The first set looks at the emissions and travel reductions associated each investment scenario under the “baseline” land use and pricing assumptions (i.e., no sensitivity tests). Here the comparison among alternatives is equally stark. The Freeway Performance scenarios is roughly 5 to 50 times more cost-effective than the HOT and Bus scenario and about 20 to 300 times more cost effective than the Rail and Ferry scenario. The difference is most pronounced when it comes to reducing delay, where the very low cost Freeway Scenario is extremely effective at 29 cents per annual hour of delay reduced, and least pronounced with it comes to reducing PM10, where none of the scenarios is very effective.

The second set of cost-effectiveness metrics looks at reductions with the land use and pricing sensitivity tests. While the Freeway Performance scenario is still the most cost-effective under these conditions and has a head start prior to the land use and pricing tests, the key thing to note is that the two transit expansion scenarios do catch up and close the gap. The reason is because the land use and pricing levers divert a significant number of auto trips to transit, bicycling, and walking.

This set of calculations is mainly illustrative and does not reflect the full public investment as it does not reflect the cost of implementing the pricing or land use sensitivity tests.

XI. TRANSIT RIDERSHIP ANALYSIS: HOT/BUS SCENARIO

This section provides additional information about the service improvements and ridership results of the High-Occupancy Toll Lane Network and Bus vision infrastructure scenario (HOT/BUS). The transit assignment was conducted by Cambridge Systematics Inc. for MTC.

This infrastructure scenario was the result of a joint effort between MTC planning staff and the Bay Area's transit operators to test the performance of a bus-based transit component to complement a HOT network and existing regional rail and ferry services. The primary objective was to demonstrate that frequent and reliable transit services could become mainstream travel choices for many residents, regardless of their income, race, ethnicity, age, and physical ability.[2,3,4]

Participating operators submitted improvements to existing services as well as new services. MTC planning staff and Cambridge Systematics Inc. reviewed the proposals for completeness and coded them into the regional transit networks for testing. The ridership results and analysis provided herein are based on the impacts of the infrastructure alone, without the additional benefits conferred by pricing and an aggressive land use, which were assessed in the sensitivity tests.

A. Transit Supplies and Transit Efficiency

The HOT/BUS infrastructure scenario represents one of the largest integrated improvements to bus and light rail services studied in the Bay Area in recent memory. Much of the improvement is actually enhancing existing services, primarily through decreasing headways (i.e., increasing frequencies). No light rail extensions were proposed. New express bus routes, Rapid Bus routes, and Bus Rapid Transit (BRT) routes represent the expansion component of this package.[5]

The operators were encouraged to propose transit priority measures (TPM), which are primarily roadway infrastructure that protects the speed and on-time reliability of buses, where appropriate. Examples of TPM include signal priority or preemption, arterial bus/HOV lanes, queue jumpers, left turn bays, and so on.[6] Based on published empirical evidence, the speed benefits of different degrees of TPM were coded into the regional transit networks.[7] In addition to improving the speed

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[2] Successful examples of regional bus-based transit networks with complementary intermediate capacity or light rail lines include Metro Vancouver, Seattle, Portland, and Minneapolis (and the City of San Francisco).

[3] The trend of "focused" land use growth calls for better short distance transit services. While improvements to express buses were made, the focus of this report is on local services.

[4] Accessible conventional transit services help to alleviate some of the growing demand on paratransit services and other non-emergency medical transport services.

[5] Express bus services typically have long stretches of their route on freeways or have segments on which there are no boardings or alightings. Typically, express bus services operate in peak periods only, and sometimes in the peak direction only. BRT is a service that has fewer stops than does a local bus route and enjoy the advantages of transit priority measures, such as dedicated bus lanes, signal priority, queue jumpers, and rail-like stations and platforms. Rapid Bus service could be considered as "BRT-lite" -- it has fewer of the "bells and whistles" that are characteristic of a full-fledged BRT, but retain the higher capacity and faster speed advantage over local services. Both BRT and Rapid Buses typically operate all day.

[6] Removing some bus stops is also a form of TPM. Fewer stops mean faster overall travel times.

[7] For example, see *Transit Capacity and Quality of Service Manual, 2nd Edition.*

and on-time reliability, which makes transit more attractive to use, significant operating and capital cost savings could be realized.

For comparison, current transit supplies are compared to the proposed incremental improvement (Tables XI.1 and XI.2). For express buses, over $1,500 million in related infrastructure was identified. These improvements include new and expanded park & ride lots, slip ramps, and transit centers. For local buses, close to $1,700 million in TPM (440 route miles) have been estimated. Including fleet expansion, the transit component of this scenario represents $5,000 million in new capital investments.[8]

Table X.1 New Local and Express Bus Supplies (2007$)

	2005/6 (Statistical Summary)	HOT/BUS Improvements	% Change
Revenue Miles	84,944,000	94,332,200	111%
Revenue Hours	7,628,000	6,253,600	82%
Revenue Vehicles + Spares	3,171	2,057	65%
O&M Cost	--	$887,063,000	--
Capital Cost (Fleet)	--	$1,329,711,000	--
Capital Cost (Infrastructure)[9]	--	$3,266,061,000	--

Table XI.2 New Light Rail Supplies (2007$)

	2005/6 (Statistical Summary)	HOT/BUS Improvements	% Change
Revenue Miles	8,280,000	3,756,000	45%
Revenue Hours	739,000	245,000	33%
Revenue Vehicles + Spares	281	97	35%
O&M Cost	--	$60,641,000	--
Capital Cost (Fleet)	--	$290,806,000	--

[8] Based on the ridership results, additional actions may need to be taken to address under-performing routes, and, vice-versa, those routes that show high productivity and warrant further service enhancements.

[9] The cost estimates do not include new and/or expanded transit yards to house expansion vehicles.

B. Customer-Based Network Design

An early output from the collaboration with the participating transit operators was the identification of level-of-service (LOS) benchmarks with which to assess the quality of the transit supplies and to help guide the operators in developing the network improvements (Table XI.3).[10] Figures XI.1a and XI.1b show a demonstration of the LOS benchmarks for the three major urban bus operators.[11]

Table XI.3 LOS Benchmarks for Headways

LOS	Headway
A+	5 minutes or better
A	6 – 10 minutes
B	11 – 15 minutes
C	16 – 20 minutes
D	21 – 30 minutes
E	31 minutes and longer

[10] Based on the LOS guidelines issued by the Transportation Research Board. Minor modifications were made.

[11] Note that Oakland, in this modeling exercise, becomes a "10-minute" network by 2035 – you need only to wait on average 5 minutes for a transit service. If you need to transfer, the wait time is on average another 5 minutes. At this level of service, urban transit becomes a practical option. As discussed later in this section, the ridership forecasts seem to bear this out.

Figure XI.1a. 2035 Base Case Level of Service for AC Transit, MUNI, & VTA (AM Peak Period)

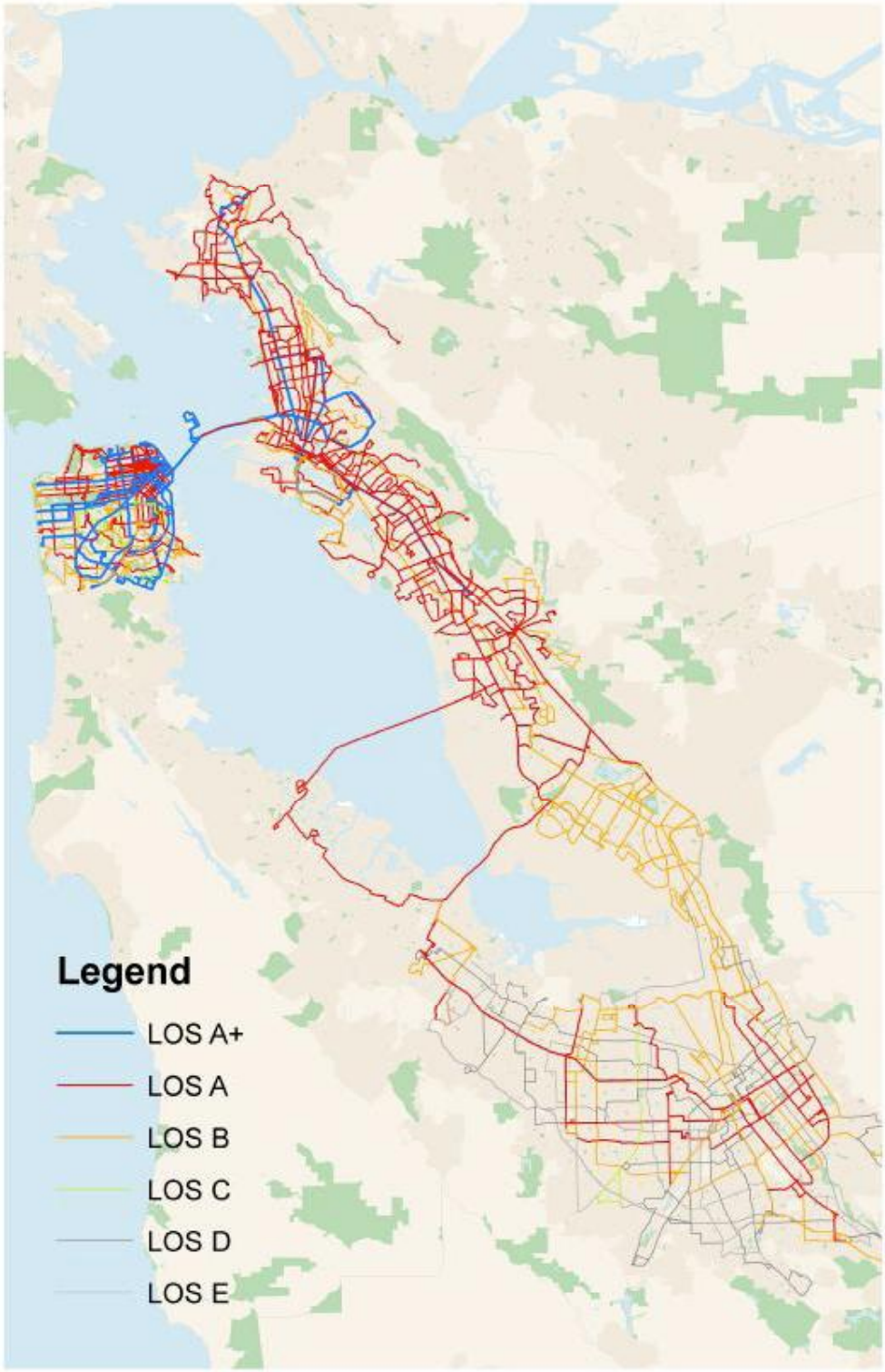


Figure XI.1b 2035 HOT/BUS Level of Service for AC Transit, MUNI, & VTA (AM Peak Period)

C. Ridership Gains, System-Wide

The HOT/BUS scenario achieves a 23% system-wide ridership increase from the 2035 no project base case (see Table XI.4). For bus and light rail services only, transit ridership increases by 33%. The additional weekday boardings are equivalent to about 6 times VTA's ridership today, 2.5 times AC Transit's ridership today, or slightly under MUNI's ridership today. Rail and ferry services see a small decline in ridership.

It should be highlighted that for bus and light rail services only, peak period ridership increases by 31%, and off-peak ridership by 37%. This suggests that there is considerable market potential for improvements to off-peak transit services.

Table XI.4. Weekday System-wide Ridership

	2035 Base Case	2035 HOT/BUS	Change	% Change
Bus & Light Rail	1,808,900	2,408,700	+599,800	+33%
Rail & Ferry	679,600	655,200	-24,400	-3.5%

D. Ridership Gains, Operator

The region's big five bus operators (MUNI, AC Transit, VTA, SamTrans, Golden Gate Transit) produce 95% of the net growth in transit ridership. It is worth noting that the smaller operators, such as CCCTA, LAVTA, Santa Rosa, and WestCAT see robust absolute and percentage ridership gains also (see Figures XI.2a and XI.2b).

Figure XI.2a. Absolute Gains in Weekday Boardings (2035 HOT/BUS v. 2035 Baseline)

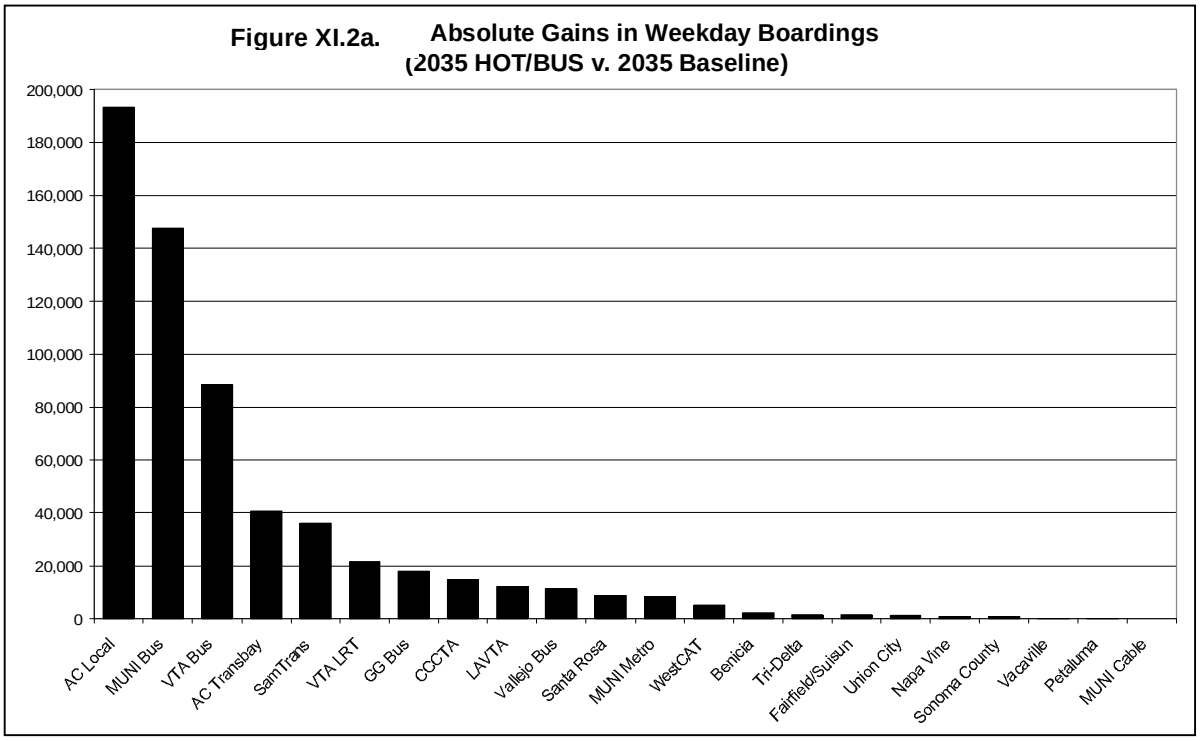
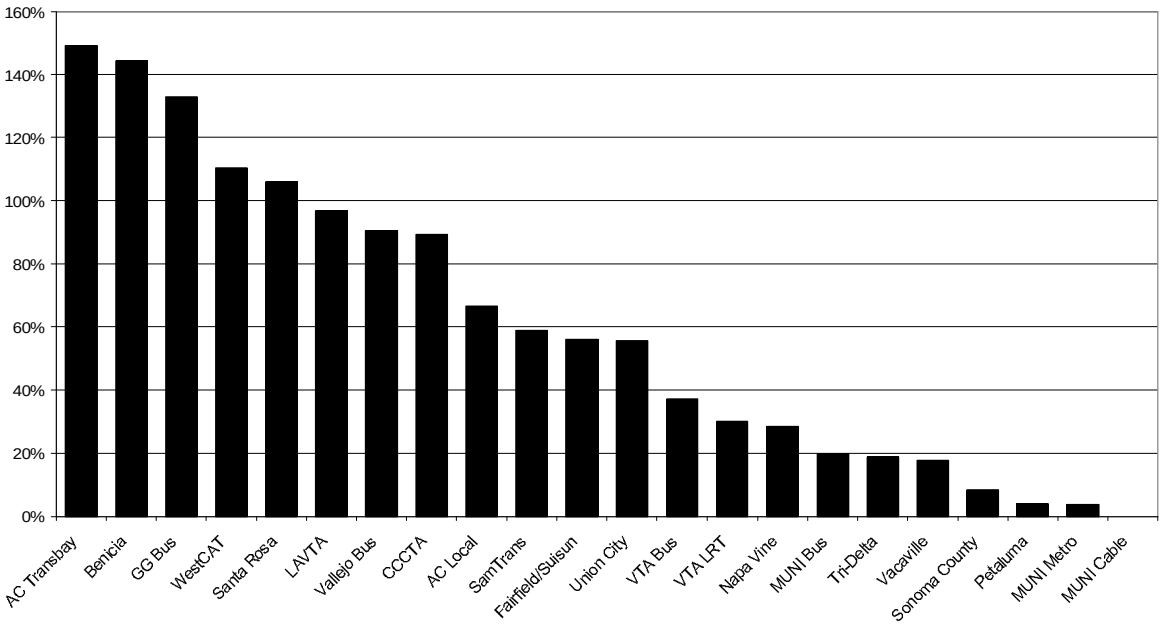


Figure XI.2b. Percentage Gains in Weekday Boardings (2035 HOT/BUS v. 2035 Baseline)



Several additional highlights include:

- AC Transit experiences the greatest gain in ridership (+234,000). Local bus produces 83% of this increase. Transbay services produce a 149% gain in express bus riders.

- MUNI experiences the second greatest gain in ridership (+152,000). Local bus produces 97% of this growth.

- Golden Gate and Marin County Transit District (MCTD) see the third largest percentage increase (+133%), growing from 13,500 to 31,400. The growth is evenly split between express and local buses. The express buses destined for San Francisco and Richmond gain a combined 9,700 new riders; the local buses gain 8,200 new riders.

- VTA experiences strong ridership growth (+110,000) in its bus (+37%) and light rail services (+30%).

E. Ridership Gains, The "Rapid" Corridors

This section highlights the ridership gains on several key corridors with proposed Rapid and BRT services (see Figure XI.3 and Tables XI.5-XI.7). The 24 "Rapid" corridors extend throughout the urbanized parts of the region.[12] In terms of ridership gains, these 24 corridors carry an additional 252,000 riders per weekday, a 55% increase from the 2035 Base Case. This growth represents 44% of the net system-wide gain in transit ridership. Twelve of the Rapid corridors achieved at least a 100% increase in ridership.

Much of the ridership gains on the Rapid Corridors could be reasonably attributed to improved frequencies and faster operating speeds (as a result of various TPMs along the Rapid corridors).

In addition, there is a high correlation between these rapid corridors and the proposed Priority Development Areas (Figure XI.4). Focusing new growth in existing communities and close to high quality local and regional transit services makes a lot of sense.

Table XI.5. The "Rapid" Corridors with Proposed/Planned Rapid Bus and BRT Services

ID	County	Corridor	Key Representative Routes	2035 Base Case Ridership	2035 HOT/BUS Ridership	Change	% Change
1	Alameda County	Telegraph Ave, International Blvd	#1 #1R/BRT	47,565	86,713	+39,148	+82%
2	Alameda County	Mission Blvd	#99 #99 Rapid (concept)	3,143	13,583	+10,440	+332%
3	Alameda County	Hesperian Blvd	#97 #97 Rapid (concept)	8,414	18,017	+9,603	+114%
4	Alameda County	San Pablo Ave	#72 #72M #72R	32,277	41,459	+9,182	+28%
5	Alameda County	MacArthur Blvd	#NL (concept upgrade to NR Rapid)	9,831	18,443	+8,612	+88%
6	Alameda County	Dublin Blvd	#Dublin Rapid (concept)	--	3,953	+3,953	--
7	Alameda County	Owens Dr, Santa Rita, Stanley Blvd, Railroad, East Ave	#10 #Livermore Rapid (planned)	7,332	8,592	+1,260	+17%
8	Alameda County	University Ave, College Ave, Broadway, Santa Clara Ave	#51 (concept modified to Rapid)	40,978	40,337	-641	-2%
9	Contra Costa County	San Ramon Valley Road	#121 #San Ramon Rapid (concept)	1,958	8,800	+6,842	+349%
10	Contra Costa County	Pacheco Blvd, Contra Costa Blvd (Martinez-Walnut Creek)	#Martinez-WC Rapid (concept)	--	4,663	+4,663	--

[12] In some cases, new Rapid Bus or BRT services overlay local services; in others, they replace the local service.

Table XI.5. The "Rapid" Corridors with Proposed/Planned Rapid Bus and BRT Services

ID	County	Corridor	Key Representative Routes	2035 Base Case Ridership	2035 HOT/BUS Ridership	Change	% Change
11	Contra Costa County	Treat Blvd	#115 (concept upgraded to Rapid)	1,030	1,983	+953	+93%
12	Contra Costa County	Ygnacio Valley Road	#107 #Ygnacio Valley Rapid (concept)	587	1,388	+801	+136%
13	Marin County	San Rafael-Sausalito	#22 #22X Rapid (concept)	895	3,147	+2,252	+252%
14	Marin County	Fairfax-San Rafael	#23 #23X Rapid (concept)	331	1,131	+800	+242%
15	San Francisco	Van Ness Ave	#47 #49	110,037	137,637	+27,600	+25%
16	San Francisco	Geary Blvd	#38 #38L #38XA #38XB	117,454	143,979	+26,525	+23%
17	San Mateo County	El Camino Real	#391 #El Camino Real Rapid (concept)	7,184	25,950	+18,766	+261%
18	San Mateo County	Bayshore Blvd	#292 #Bayshore Rapid (concept)	3,920	18,680	+14,760	+377%
19	Santa Clara County	El Camino Real	#22 #522 BRT (planned)	31,008	57,164	+26,156	+84%
20	Santa Clara County	Stevens Creek Blvd	#23 #523 Rapid (concept)	10,991	30,439	+19,448	+177%
21	Santa Clara County	Monterey Highway	#68 #568 Rapid (concept)	21,556	33,795	+12,239	+57%
22	Santa Clara County	Sunnyvale-Cupertino	#54 #554 Rapid (concept)	2,358	4,581	+2,223	+94%
23	Sonoma County (Santa Rosa)	Santa Rosa Ave Mendocino Ave	#1 #18 #20 Santa Rosa Rapid (concept)	263	5,699	+5,436	+2,067%
24	Sonoma County (Santa Rosa)	College Ave Montgomery Drive	#2 #3 #21 College Ave Rapid (concept)	1,083	3,106	+2,023	+187%

Figure XI.3. The "Rapid" Corridors as Proposed by Participating Transit Operators

Figure XI.4. The "Rapid" Corridors and Priority Development Areas

Table XI.6. Top Five Corridors by Absolute Gains

Corridor	Absolute Increase from 2035 Base Case
Telegraph Ave, International Blvd (Alameda County)	+39,200
Van Ness Ave (San Francisco)	+27,600
Geary Blvd (San Francisco)	+26,500
El Camino Real (Santa Clara County)	+26,200
Stevens Creek Blvd (Santa County)	+19,500

Table XI.7. Top Five Corridors by Percent Gains

Corridor	% Increase from 2035 Base Case
Santa Rosa Ave, Mendocino Ave (Santa Rosa)	+2,067%
Bayshore Blvd (San Mateo)	+377%
San Ramon Valley Road (Walnut Creek, San Ramon, Dublin)	+349%
Mission Blvd (Alameda County)	+332%
El Camino Real (San Mateo County)	+261%

F. Ridership Gains, Key Express Bus Corridors

For those express bus routes that received service improvements, an additional 70,000 riders are attracted to this service, representing a 160% increase from a base of 44,000 (Figure XI.5 shows the proposed new express bus routes). Several of the proposed express bus routes perform less productively than anticipated – these would be candidates for elimination or some other of remedial action.

Four key express bus bridge corridors deserve mention for the significant growth in ridership from baseline conditions: Golden Gate Bridge, Bay Bridge, San Mateo Bridge, and Dumbarton Bridge (see Table XI.8).

Table XI.8. Key Express Bus Bridge Corridors

Corridor	% Increase from 2035 Baseline	Absolute Increase from 2035 Baseline
Dumbarton Bridge	+310%	10,000
San Mateo Bridge	+185%	12,200
Golden Gate Bridge	+144%	10,600
San Francisco-Oakland Bay Bridge	+84%	16,600

Figure XI.5. New Express Bus Routes as Proposed by Participating Transit Operators

G. Relationship with Commuter Rail

By improving some bus services that parallel rail lines, it is expected that this would have at least of one of two effects: the buses will capture some commuter rail customers or attract new customers. Indeed, we see both effects. In the aggregate, rail services see a minor decrease in ridership (-5%). For example, Caltrain loses 9,500 riders, mostly likely to the advantage of the two Rapid corridors in San Mateo and Santa Clara counties (El Camino Real and Bayshore Boulevard). These three Rapid corridors attract 60,000 additional riders, which suggests new customers are attracted to transit over and above the Caltrain-to-SamTrans/VTA converts.

Improved bus services also cut into BART's ridership on a couple of lines, but at the same time add new riders elsewhere from better feeder services. The Daly City-Richmond and Fremont-Richmond lines see a combined loss of 33,000 riders. In turn, the Millbrae-Dublin/Pleasanton and Daly City-Fremont lines gain a combined 10,000 riders.

H. Environmental Performance

The HOT/BUS scenario, along with the Freeway Operations and Rail/Ferry scenarios, was tested against specific performance targets. Carbon dioxide reduction is one of these targets.

One key way to reduce carbon dioxide emissions is to reduce the amount of driving or the number of cars on the road. The transit component of the HOT/BUS scenario reduces 107,000 weekday auto trips (or 226,000 auto person trips). This is equivalent to about 10% of all auto trips entering San Francisco from elsewhere in the Bay Area on a typical weekday. The completed HOT network provides additional freeway capacity which improves auto speed, which in turn reduces some congestion-related carbon dioxide emissions.

The HOT/Bus package reduces carbon dioxide emissions from passenger vehicles by 4,500 metric tons per day compared to the 2035 Base Case, or about 1.4 million metric tons (MMT) per year. While these reductions are modest in comparison to the aggressive statewide targets established by the State of California[13], they are nevertheless impressive if we consider that pricing was absent.[14] To better visualize the magnitude of these reductions, the reduction in 1.4 MMT of CO_2 in one year is equivalent to[15]:

- *One year of electricity used by 270,000 average California households; or,*
- *3.2 million barrels of oil saved; or,*
- *14,000 Goodyear blimps of volume reduced.*

[13] AB32 sets a target for the State to reduce greenhouse gases from all sources by 173 million metric tons by 2020.

[14] Congestion pricing increases the cost of operating automobiles. As driving becomes more expensive, alternative modes become more attractive, namely public transit, bicycling, and walking. For example, the pricing-only sensitivity test diverts a total of 2.4 million auto person trips over to public transit, bicycling, and walking!

[15] "Conversion of 1 MMT CO_2 to Familiar Equivalents" (California Air Resources Board)

It should be noted that in the full sensitivity test, in which pricing, an alternative land use, and telecommuting are introduced, the reduction in CO_2 emissions comes to 20,800 metric tons per day, or 6.2 MMT per year.

I. Summary

This section has provided additional information about the ridership potential from improving the service levels of local and regional bus services and light rail lines and introducing a complementary mix of speed protection measures. By improving service frequencies in both peak and off-peak periods, as well as providing the speed protection benefits of transit priority measures on key corridors, bus and light rail transit ridership increases by 33% over the 2035 Base Case. Along with improving access and transportation choices for all Bay Area residents, this scenario also provides significant environmental benefits.

The results also suggest that further investigation is warranted to optimize the allocation of service hours to high-demand corridors, while observing the need to also provide coverage-based services.

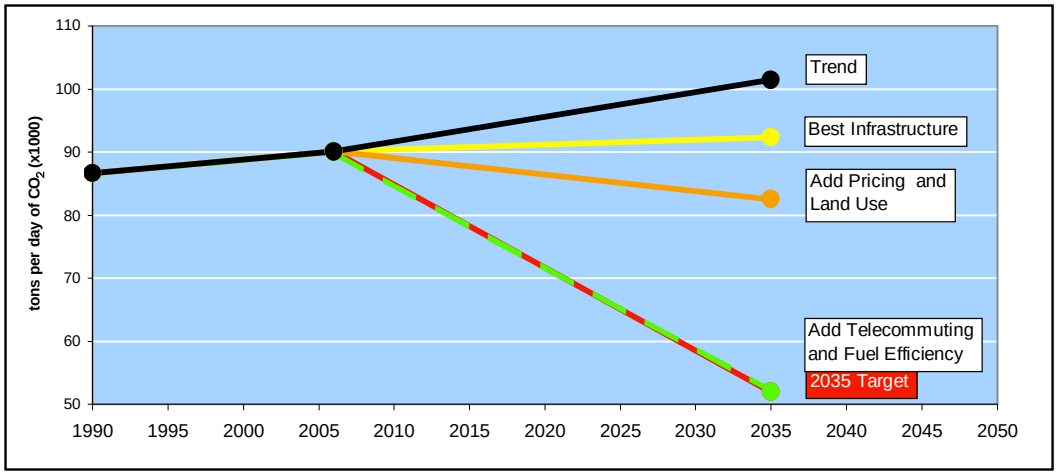
Summary Exhibit 1

Emissions Measure: Carbon Dioxide (CO_2)

Target: Reduce CO_2 emissions by 40% below 1990 levels

(Includes CO_2 from non-recurrent congestion)

Year	Tons per day of CO_2 (x1000)
1990	87
2006	90
2035 Target	52



Note:
Trend assumes all state and federal laws and regulations, including fuel efficiency gains under Pavley legislation. Increasing telecommuing to 10 percent helps marginally; increases in fuel efficiency beyond Pavley (or alternative fuels) needed to meet target.

2035 Thousands of Tons CO_2/Day	Infrastructure Packages			
Policy Packages	No New Investments	Freeway Performance	HOT & Local/Express Bus	Regional Rail & Ferry
No Policy Changes	101.4	92.4	97.0	99.1
Pricing Sensitivity	93.4	86.7	88.9	91.0
Land Use Sensitivity	93.4	86.8	90.5	91.8
Combined Pricing & Land Use	87.2	82.5	84.2	85.4
Combined Pricing, Land Use, and Telecommuting	n/a	79.6	80.9	n/a
Combined Pricing, Land Use, Telecommuting and Fuel Efficiency	n/a	n/a	52.0	n/a

Cost Effectiveness (dollars per thousand tons reduced per year) (4%Discount Rate)

Policy Packages	Freeway Performance	HOT & Local/Express Bus	Regional Rail & Ferry
No Policy Changes	$ 22,000	$ 818,000	$ 18,859,000
Combined Pricing & Land Use*	$ 11,000	$ 210,000	$ 2,711,000

* Does not include cost to implement alternative land use

Summary Exhibit 2

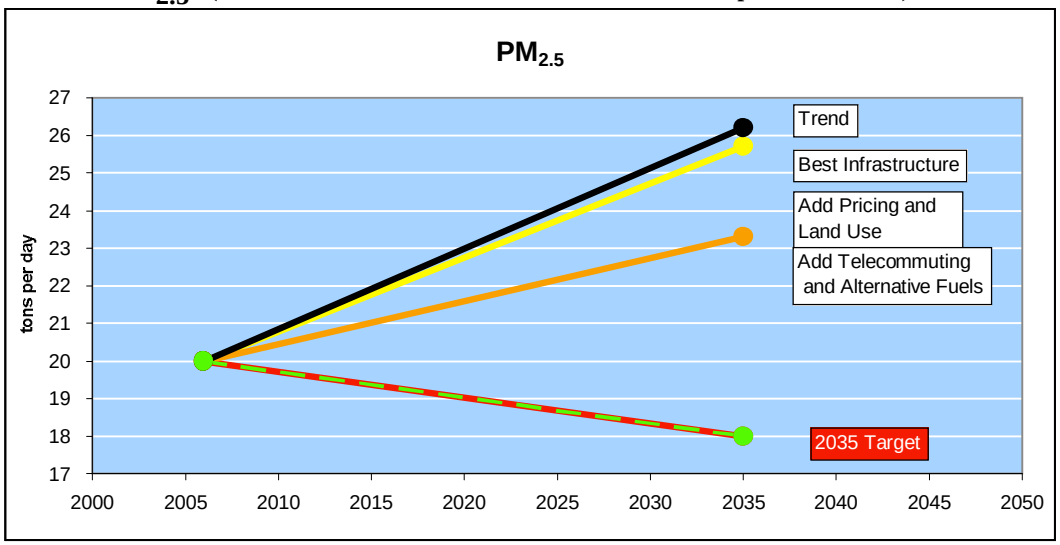
Emissions Measure: Particulate Matter

Target 1: Reduce $PM_{2.5}$ (finer particulates) emissions by 10% below 2006 levels

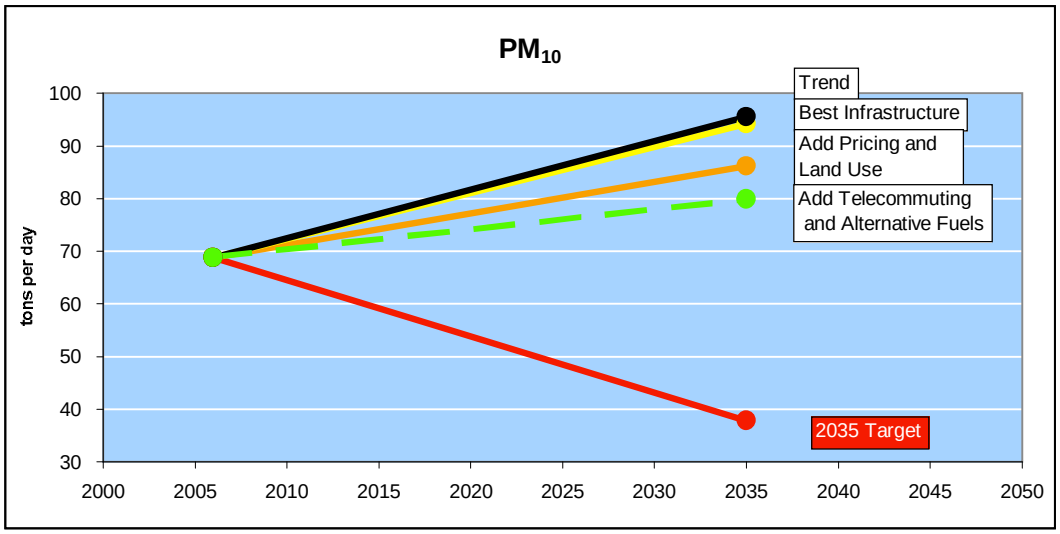
Target 2: Reduce PM_{10} (coarser particulates) emissions by 45% below 2006 levels

Year	$PM_{2.5}$ (tons per day)	PM_{10} (tons per day)
2006	20	69
2035 Target	18	38

2A $PM_{2.5}$ (On-road mobile sources: exhaust, brake/tire wear, paved road dust)



2B PM_{10} (On-road mobile sources: exhaust, brake/tire wear, paved road dust)



Trend assumes CARB and EPA regulations to reduce emissions from heavy diesel engines (trucks)

2A 2035 Tons/Day of $PM_{2.5}$	Infrastructure Packages			
Policy Packages	No New Investments	Freeway Performance	HOT & Local/Express Bus	Regional Rail & Ferry
No Policy Changes	26.2	25.8	25.7	25.8
Pricing Sensitivity	24.7	24.5	24.1	24.3
Land Use Sensitivity	24.9	24.6	24.6	24.6
Combined Pricing & Land Use	23.7	23.6	23.3	23.3
Combined Pricing, Land Use, and Telecommuting	n/a	22.8	22.6	n/a
Combined Pricing, Land Use, Telecommuting, and Alternative Fuels			18.0	

2B 2035 Tons/Day of PM_{10}	Infrastructure Packages			
Policy Packages	No New Investments	Freeway Performance	HOT & Local/Express Bus	Regional Rail & Ferry
No Policy Changes	95.6	95.2	94.1	94.2
Pricing Sensitivity	90.8	90.8	88.9	89.3
Land Use Sensitivity	91.5	91.4	90.8	90.4
Combined Pricing & Land Use	87.6	87.7	86.4	86.2
Combined Pricing, Land Use, and Telecommuting	n/a	85.0	83.8	n/a
Combined Pricing, Land Use, Telecommuting, and Alternative Fuels			80.0	

Cost Effectiveness $PM_{2.5}$ (dollars per ton reduced per year) (4%Discount Rate)

Policy Packages	Freeway Performance	HOT & Local/Express Bus	Regional Rail & Ferry	$PM_{2.5}$
No Policy Changes	$ 477,000	$ 7,197,000	$ 33,776,000	
Combined Pricing & Land Use*	$ 73,000	$ 1,241,000	$ 4,715,000	

Cost Effectiveness PM_{10} (dollars per ton reduced per year) (4%Discount Rate)

Policy Packages	Freeway Performance	HOT & Local/Express Bus	Regional Rail & Ferry	PM_{10}
No Policy Changes	$ 550,000	$ 2,540,000	$ 10,158,000	
Combined Pricing & Land Use*	$ 25,000	$ 392,000	$ 1,446,000	

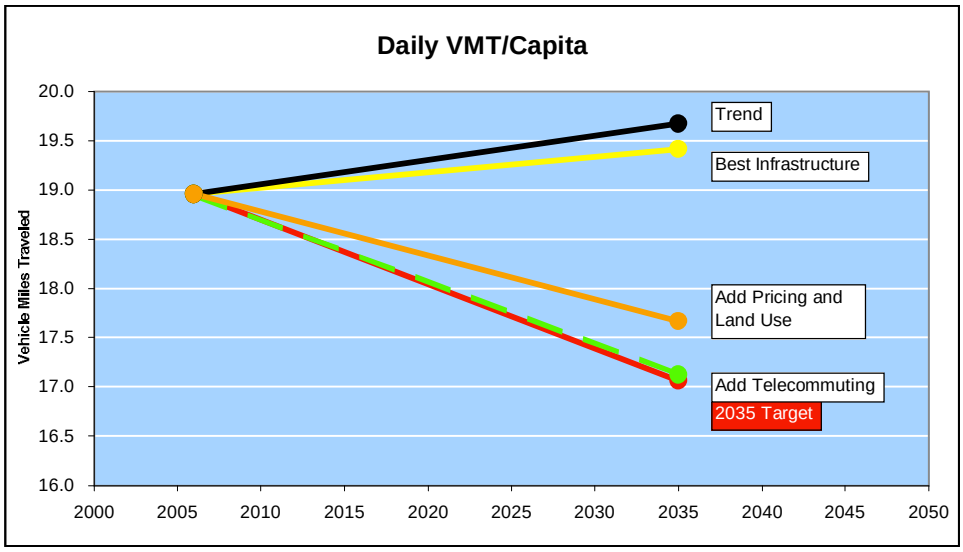
* Does not include cost to implement alternative land use

Summary Exhibit 3

Economy Measure: Vehicle Miles Traveled (VMT) per Capita

Target: Reduce daily vehicle miles traveled per capita by 10% below 2006 levels
(Includes Year 2035 truck trips and Year 2006 interregional trips)

Year	Daily VMT per capita
2006	19.0
2035 Target	17.1



2035 Daily VMT/Capita	Infrastructure Packages			
Policy Packages	No New Investments	Freeway Performance	HOT & Local/Express Bus	Regional Rail & Ferry
No Policy Change	19.7	19.8	19.4	19.4
Pricing Sensitivity	18.7	18.9	18.4	18.4
Land Use Sensitivity	18.7	18.9	18.6	18.6
Combined Pricing & Land Use	17.9	18.1	17.7	17.7
Combined Pricing, Land Use, and Telecommuting	n/a	17.5	17.1	n/a

Note: Includes Year 2035 Truck Trips and Year 2006 Interregional Trips

Cost Effectiveness (dollars per VMT reduced per year) (4%Discount Rate)

Policy Packages	Freeway Performance	HOT & Local/Express Bus	Regional Rail & Ferry
No Policy Changes	$ (0.14)	$ 1.70	$ 5.76
Combined Pricing & Land Use*	$ 0.01	$ 0.20	$ 0.74

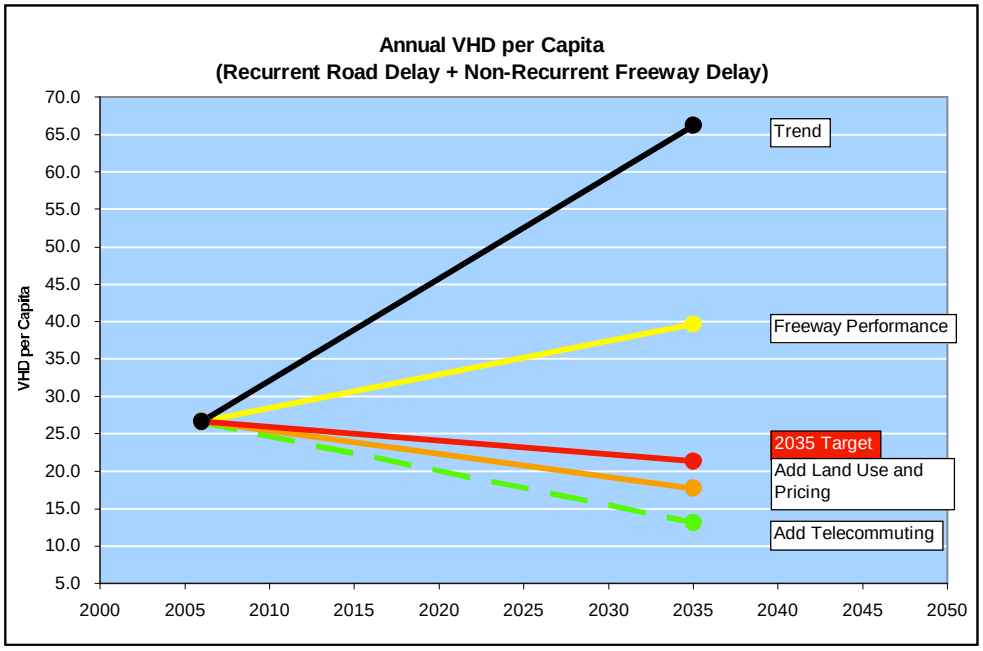
* Does not include cost to implement alternative land use

Summary Exhibit 4

Economy Measure: Recurrent & Non-Recurrent VHD per Capita

Target: Reduce annual vehicle hours of delay per capita by 20% below 2006 levels
(Recurrent road delay + non-recurrent freeway delay)

Year	Annual VHD per Capita
2006	26.7
2035 Target	21.3



2035 Annual VHD per Capita	Infrastructure Packages			
Policy Packages	No New Investments	Freeway Performance	HOT & Local/Express Bus	Regional Rail & Ferry
No Policy Changes	66.2	39.7	55.8	59.6
Pricing Sensitivity	47.3	27.6	39.1	42.7
Land Use Sensitivity	41.3	23.3	34.4	38.7
Combined Pricing & Land Use	31.8	17.7	24.6	28.3
Combined Pricing, Land Use, and Telecommuting	n/a	13.1	23.8	n/a

2035 Daily Vehicle Minutes Delay per Capita	Infrastructure Packages			
Policy Packages	No New Investments	Freeway Performance	HOT & Local/Express Bus	Regional Rail & Ferry
No Policy Changes	11	7	9	10
Pricing Sensitivity	8	5	6	7
Land Use Sensitivity	7	4	6	6
Combined Pricing & Land Use	5	3	4	5

Cost Effectiveness (dollars per VMD reduced per year) (4%Discount Rate)

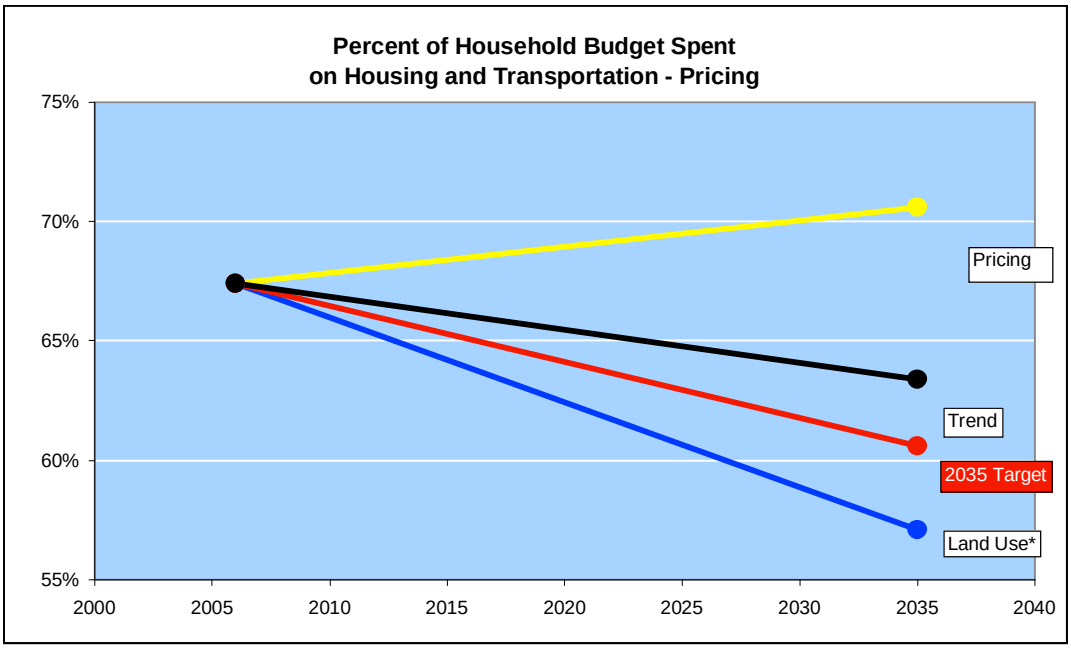
Policy Packages	Freeway Performance	HOT & Local/Express Bus	Regional Rail & Ferry
No Policy Changes	$ 0.29	$ 13.95	$ 81.58
Combined Pricing & Land Use*	$ 0.16	$ 3.51	$ 14.51

Summary Exhibit 5

Equity Measure: Housing and Transportation Affordability

Target: Reduce housing and transport costs as share of of household budgets by 10% below 2006 levels
(Households of the lowest two income categories, with household income less than $70,000/year)

Year	Percentage of household budget spent on housing and transportation
2006	67%
2035 Target	61%



* Land use test assumes direct housing subsidy to low-income households totalling $2.1 billion annually

2035 Share of Household Budget Spent on Housing & Transportation
Lowest two income categories

Policy Packages	No New Investments	Freeway Performance	HOT & Local/Express Bus	Regional Rail & Ferry
No Policy Changes	**63.4%**	63.5%	63.5%	63.9%
Pricing Sensitivity	77.8%	77.1%	76.8%	77.9%
Land Use Sensitivity*	**57.1%**	57.1%	57.2%	57.4%
Combined Pricing & Land Use*	**70.6%**	70.1%	70.2%	70.7%

bold entries are those shown in graph above

* Land use test assumes direct housing subsidy to low-income households totalling $2.1 billion annually

Summary Exhibit 6
Cost Effectiveness of Infrastructure Scenarios (2007$, assumes 4% discount rate)

Infrastructure Scenario Cost Summary (millions)

	Freeway Performance	HOT & Local/Express Bus	Regional Rail & Ferry
Total Capital Cost	$ 613	$ 9,477	$ 64,222
Annualized Capital Cost (4% discount rate)	$ 45	$ 697	$ 3,721
Net Annual O&M Cost	$ 24	$ 616	$ 1,210
Total Annualized Capital and Annual O&M Cost	$ 69	$ 1,313	$ 4,931

Cost per quantity reduced, compared to 2035 with no new investments

	No Policy Changes			Combined Pricing and Land Use [1]		
	Freeway Performance	HOT & Local/Express Bus	Regional Rail & Ferry	Freeway Performance	HOT & Local/Express Bus	Regional Rail & Ferry
Environment Principle						
CO_2 (dollars per 1000 tons per year) [2]	$ 22,000	$ 813,000	$ 5,771,000	$ 11,000	$ 210,000	$ 845,000
$PM_{2.5}$ (dollars per ton per year)	$ 477,000	$ 7,197,000	$ 33,776,000	$ 73,000	$ 1,241,000	$ 4,715,000
PM_{10} (dollars per ton per year)	$ 550,000	$ 2,540,000	$ 10,158,000	$ 25,000	$ 392,000	$ 1,446,000
Vehicle Miles Traveled (dollars per VMT reduced per year)	NA [3]	$ 1.70	$ 5.76	$ 0.01	$ 0.20	$ 0.74
Economy Principle						
Delay (dollars per VHD reduced per year) [4]	$ 0.29	$ 13.95	$ 81.58	$ 0.16	$ 3.51	$ 14.51

[1] Does not reflect costs associated with implementing the Alternative Land Use (e.g., developer subsidies, direct housing subsidies to low income households)

[2] Does not include CO2 emissions associated with non-recurring congestion

[3] Compared to the 2035 Baseline, the Freeway Performance Scenario increases VMT so no cost effectiveness figure is given

[4] Includes vehicle delay associated with recurrent and non-recurrent congestion

Table A.1
Socio-Economic Forecasts by Bay Area County
ABAG Projections 2007 and ABAG 2035 Land Use Alternative (2035-LUA)

1. Total Population

County	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Alameda	1,518,520	1,938,600	1,946,427	27.7%	0.4%
Contra Costa	1,031,106	1,300,600	1,226,241	26.1%	-5.7%
Marin	253,763	283,100	293,606	11.6%	3.7%
Napa	134,822	155,700	157,036	15.5%	0.9%
San Francisco	798,379	956,800	1,169,305	19.8%	22.2%
San Mateo	725,712	861,600	912,217	18.7%	5.9%
Santa Clara	1,783,895	2,380,398	2,337,435	33.4%	-1.8%
Solano	428,320	585,800	501,054	36.8%	-14.5%
Sonoma	484,862	568,900	587,957	17.3%	3.3%
Bay Area	7,159,379	9,031,498	9,131,278	26.1%	1.1%

2. Household Population (Total Population less Group Quarters Population)

County	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Alameda	1,490,074	1,904,200	1,912,026	27.8%	0.4%
Contra Costa	1,019,760	1,288,400	1,214,043	26.3%	-5.8%
Marin	242,419	271,100	281,605	11.8%	3.9%
Napa	129,502	150,000	151,336	15.8%	0.9%
San Francisco	777,963	934,998	1,147,503	20.2%	22.7%
San Mateo	715,037	849,100	899,714	18.7%	6.0%
Santa Clara	1,753,629	2,348,900	2,305,935	33.9%	-1.8%
Solano	411,920	569,200	484,553	38.2%	-14.9%
Sonoma	473,642	557,400	576,458	17.7%	3.4%
Bay Area	7,013,946	8,873,298	8,973,173	26.5%	1.1%

3. Total Households

County	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Alameda	547,995	700,089	701,785	27.8%	0.2%
Contra Costa	371,728	485,240	446,007	30.5%	-8.1%
Marin	103,612	116,800	118,197	12.7%	1.2%
Napa	49,709	59,650	57,931	20.0%	-2.9%
San Francisco	340,805	396,309	481,546	16.3%	21.5%
San Mateo	261,503	312,030	330,383	19.3%	5.9%
Santa Clara	602,318	806,203	802,713	33.9%	-0.4%
Solano	144,109	196,220	169,353	36.2%	-13.7%
Sonoma	183,973	219,980	221,791	19.6%	0.8%
Bay Area	2,605,752	3,292,521	3,329,706	26.4%	1.1%

Table A.1 (continued)
Socio-Economic Forecasts by Bay Area County
ABAG Projections 2007 and ABAG 2035 Land Use Alternative (2035-LUA)

4. Employed Residents

County	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Alameda	715,000	1,131,199	1,134,714	58.2%	0.3%
Contra Costa	466,736	717,600	665,007	53.7%	-7.3%
Marin	123,319	152,500	163,789	23.7%	7.4%
Napa	64,121	85,400	82,639	33.2%	-3.2%
San Francisco	389,580	518,801	768,532	33.2%	48.1%
San Mateo	322,996	468,000	517,433	44.9%	10.6%
Santa Clara	763,181	1,326,601	1,366,619	73.8%	3.0%
Solano	199,284	326,600	264,253	63.9%	-19.1%
Sonoma	238,186	289,800	321,672	21.7%	11.0%
Bay Area	3,282,403	5,016,501	5,284,658	52.8%	5.3%

5. Total Employment

County	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Alameda	740,524	1,099,554	1,161,142	48.5%	5.6%
Contra Costa	383,854	591,638	577,899	54.1%	-2.3%
Marin	136,531	165,184	173,092	21.0%	4.8%
Napa	71,627	98,566	90,404	37.6%	-8.3%
San Francisco	561,134	832,874	857,117	48.4%	2.9%
San Mateo	342,491	521,991	525,353	52.4%	0.6%
Santa Clara	885,961	1,365,827	1,364,457	54.2%	-0.1%
Solano	152,698	227,872	206,217	49.2%	-9.5%
Sonoma	223,770	344,286	306,887	53.9%	-10.9%
Bay Area	3,498,590	5,247,792	5,262,568	50.0%	0.3%

6. Net In-Commute (Total Employment Less Employed Residents)

County	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Alameda	25,524	-31,645	26,428	-224.0%	-183.5%
Contra Costa	-82,882	-125,962	-87,108	52.0%	-30.8%
Marin	13,212	12,684	9,303	-4.0%	-26.7%
Napa	7,506	13,166	7,765	75.4%	-41.0%
San Francisco	171,554	314,073	88,585	83.1%	-71.8%
San Mateo	19,495	53,991	7,920	176.9%	-85.3%
Santa Clara	122,780	39,226	-2,162	-68.1%	-105.5%
Solano	-46,586	-98,728	-58,036	111.9%	-41.2%
Sonoma	-14,416	54,486	-14,785	-478.0%	-127.1%
Bay Area	216,187	231,291	-22,090	7.0%	-109.6%

Table A.1 (continued)
Socio-Economic Forecasts by Bay Area County
ABAG Projections 2007 and ABAG 2035 Land Use Alternative (2035-LUA)

7. Total Acres

County	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Alameda	473,289	473,289	473,289	0.0%	0.0%
Contra Costa	506,962	506,962	506,962	0.0%	0.0%
Marin	331,837	331,837	331,837	0.0%	0.0%
Napa	502,040	502,040	502,040	0.0%	0.0%
San Francisco	30,076	30,076	30,076	0.0%	0.0%
San Mateo	289,654	289,654	289,654	0.0%	0.0%
Santa Clara	828,372	828,372	828,372	0.0%	0.0%
Solano	576,613	576,613	576,613	0.0%	0.0%
Sonoma	1,036,394	1,036,394	1,036,394	0.0%	0.0%
Bay Area	4,575,237	4,575,237	4,575,237	0.0%	0.0%

8. Residential Acres

County	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Alameda	89,456	103,070	99,934	15.2%	-3.0%
Contra Costa	85,128	100,420	92,037	18.0%	-8.3%
Marin	30,983	33,363	34,464	7.7%	3.3%
Napa	19,123	20,957	21,201	9.6%	1.2%
San Francisco	9,535	9,847	9,942	3.3%	1.0%
San Mateo	62,574	66,366	66,379	6.1%	0.0%
Santa Clara	120,505	131,189	132,271	8.9%	0.8%
Solano	45,880	56,800	51,067	23.8%	-10.1%
Sonoma	147,211	159,500	158,449	8.3%	-0.7%
Bay Area	610,395	681,512	665,744	11.7%	-2.3%

9. Commercial/Industrial Acres

County	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Alameda	48,852	51,494	50,606	5.4%	-1.7%
Contra Costa	35,833	42,297	38,564	18.0%	-8.8%
Marin	8,688	9,090	9,048	4.6%	-0.5%
Napa	4,836	5,639	5,220	16.6%	-7.4%
San Francisco	5,866	6,040	5,963	3.0%	-1.3%
San Mateo	23,196	23,832	23,621	2.7%	-0.9%
Santa Clara	44,845	46,739	46,011	4.2%	-1.6%
Solano	25,218	26,530	25,866	5.2%	-2.5%
Sonoma	32,399	33,136	32,757	2.3%	-1.1%
Bay Area	229,733	244,797	237,656	6.6%	-2.9%

Table A.1 (continued)
Socio-Economic Forecasts by Bay Area County
ABAG Projections 2007 and ABAG 2035 Land Use Alternative (2035-LUA)

10. Average Household Size

County	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Alameda	2.72	2.72	2.72	0.0%	0.2%
Contra Costa	2.74	2.66	2.72	-3.2%	2.5%
Marin	2.34	2.32	2.38	-0.8%	2.6%
Napa	2.61	2.51	2.61	-3.5%	3.9%
San Francisco	2.28	2.36	2.38	3.4%	1.0%
San Mateo	2.73	2.72	2.72	-0.5%	0.1%
Santa Clara	2.91	2.91	2.87	0.1%	-1.4%
Solano	2.86	2.90	2.86	1.5%	-1.4%
Sonoma	2.57	2.53	2.60	-1.6%	2.6%
Bay Area	2.69	2.69	2.69	0.1%	0.0%

11. Population, Age 65+

County	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Alameda	157,932	411,391	414,147	160.5%	0.7%
Contra Costa	122,587	306,423	295,907	150.0%	-3.4%
Marin	37,526	92,186	96,074	145.7%	4.2%
Napa	21,426	37,716	38,171	76.0%	1.2%
San Francisco	104,346	216,560	268,969	107.5%	24.2%
San Mateo	95,733	218,002	231,216	127.7%	6.1%
Santa Clara	178,457	501,365	501,592	180.9%	0.0%
Solano	52,626	127,949	108,980	143.1%	-14.8%
Sonoma	67,015	151,459	156,669	126.0%	3.4%
Bay Area	837,648	2,063,051	2,111,725	146.3%	2.4%

12. Share of Population, Age 65+

County	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Alameda	10.4%	21.2%	21.3%	104.0%	0.3%
Contra Costa	11.9%	23.6%	24.1%	98.2%	2.4%
Marin	14.8%	32.6%	32.7%	120.2%	0.5%
Napa	15.9%	24.2%	24.3%	52.4%	0.3%
San Francisco	13.1%	22.6%	23.0%	73.2%	1.6%
San Mateo	13.2%	25.3%	25.3%	91.8%	0.2%
Santa Clara	10.0%	21.1%	21.5%	110.5%	1.9%
Solano	12.3%	21.8%	21.8%	77.8%	-0.4%
Sonoma	13.8%	26.6%	26.6%	92.6%	0.1%
Bay Area	11.7%	22.8%	23.1%	95.2%	1.2%

Table A.1 (continued)
Socio-Economic Forecasts by Bay Area County
ABAG Projections 2007 and ABAG 2035 Land Use Alternative (2035-LUA)

13. Mean Household Income (2007 dollars)

County	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Alameda	$94,588	$120,291	$121,317	27.2%	0.9%
Contra Costa	$106,707	$139,327	$140,987	30.6%	1.2%
Marin	$130,149	$171,248	$176,448	31.6%	3.0%
Napa	$96,051	$126,344	$147,223	31.5%	16.5%
San Francisco	$103,796	$132,857	$130,136	28.0%	-2.0%
San Mateo	$128,817	$165,308	$163,854	28.3%	-0.9%
Santa Clara	$101,703	$129,829	$132,552	27.7%	2.1%
Solano	$82,478	$125,023	$121,065	51.6%	-3.2%
Sonoma	$89,741	$115,238	$124,821	28.4%	8.3%
Bay Area	$103,031	$133,072	$134,785	29.2%	1.3%

14. Number of Low Income Households (Less Than $42,700 in 2007 dollars)

County	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Alameda	150,120	133,313	133,318	-11.2%	0.0%
Contra Costa	77,124	64,356	56,503	-16.6%	-12.2%
Marin	19,498	12,678	11,412	-35.0%	-10.0%
Napa	10,661	7,747	4,063	-27.3%	-47.6%
San Francisco	90,556	75,645	103,417	-16.5%	36.7%
San Mateo	31,144	28,838	30,451	-7.4%	5.6%
Santa Clara	159,200	145,810	142,131	-8.4%	-2.5%
Solano	37,733	28,111	19,894	-25.5%	-29.2%
Sonoma	46,586	35,835	28,709	-23.1%	-19.9%
Bay Area	622,622	532,333	529,898	-14.5%	-0.5%

15. Share, Low Income Households (Less Than $42,700 in 2007 dollars) of Total Households

County	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Alameda	27.4%	19.0%	19.0%	-30.5%	-0.2%
Contra Costa	20.7%	13.3%	12.7%	-36.1%	-4.5%
Marin	18.8%	10.9%	9.7%	-42.3%	-11.0%
Napa	21.4%	13.0%	7.0%	-39.4%	-46.0%
San Francisco	26.6%	19.1%	21.5%	-28.2%	12.5%
San Mateo	11.9%	9.2%	9.2%	-22.4%	-0.3%
Santa Clara	26.4%	18.1%	17.7%	-31.6%	-2.1%
Solano	26.2%	14.3%	11.7%	-45.3%	-18.0%
Sonoma	25.3%	16.3%	12.9%	-35.7%	-20.5%
Bay Area	23.9%	16.2%	15.9%	-32.3%	-1.6%

Table A.2
Socio-Economic Forecasts by Urban/Suburban Density Level
ABAG Projections 2007 and ABAG 2035 Land Use Alternative (2035-LUA)

1. Total Population

Density Group	Year 2006	% of Total	Year 2035	% of Total	2035 Land Use Alternative	% of Total	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Rural	387,392	5%	435,497	5%	426,499	5%	12.4%	-2.1%
Rural-Suburban	361,376	5%	337,401	4%	376,854	4%	-6.6%	11.7%
Suburban-Dispersed	1,994,616	28%	2,104,828	23%	2,046,017	22%	5.5%	-2.8%
Suburban-Dense	1,886,409	26%	1,850,409	20%	1,988,244	22%	-1.9%	7.4%
Urban	1,572,610	22%	2,564,919	28%	2,357,048	26%	63.1%	-8.1%
Urban Core	956,976	13%	1,738,444	19%	1,936,616	21%	81.7%	11.4%
Bay Area Total	7,159,379	100%	9,031,498	100%	9,131,278	100%	26.1%	1.1%

2. Household Population (Total Population less Group Quarters Population)

Density Group	Year 2006	% of Total	Year 2035	% of Total	2035 Land Use Alternative	% of Total	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Rural	377,185	5%	425,803	5%	415,986	5%	12.9%	-2.3%
Rural-Suburban	355,413	5%	332,068	4%	370,460	4%	-6.6%	11.6%
Suburban-Dispersed	1,950,363	28%	2,069,803	23%	2,006,466	22%	6.1%	-3.1%
Suburban-Dense	1,865,608	27%	1,824,807	21%	1,966,490	22%	-2.2%	7.8%
Urban	1,543,013	22%	2,529,765	29%	2,319,251	26%	63.9%	-8.3%
Urban Core	922,364	13%	1,691,052	19%	1,894,520	21%	83.3%	12.0%
Bay Area Total	7,013,946	100%	8,873,298	100%	8,973,173	100%	26.5%	1.1%

3. Total Households

Density Group	Year 2006	% of Total	Year 2035	% of Total	2035 Land Use Alternative	% of Total	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Rural	142,152	5%	162,609	5%	156,427	5%	14.4%	-3.8%
Rural-Suburban	125,077	5%	120,970	4%	134,102	4%	-3.3%	10.9%
Suburban-Dispersed	729,443	28%	776,012	24%	745,761	22%	6.4%	-3.9%
Suburban-Dense	680,841	26%	676,951	21%	724,529	22%	-0.6%	7.0%
Urban	541,945	21%	904,374	27%	841,086	25%	66.9%	-7.0%
Urban Core	386,294	15%	651,605	20%	727,801	22%	68.7%	11.7%
Bay Area Total	2,605,752	100%	3,292,521	100%	3,329,706	100%	26.4%	1.1%

4. Total Land Area (in Acres)

Density Group	Year 2006	% of Total	Year 2035	% of Total	2035 Land Use Alternative	% of Total	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Rural	3,411,363	75%	3,304,035	72%	3,347,536	73%	-3.1%	1.3%
Rural-Suburban	352,132	8%	320,591	7%	352,577	8%	-9.0%	10.0%
Suburban-Dispersed	519,908	11%	599,158	13%	539,321	12%	15.2%	-10.0%
Suburban-Dense	177,051	4%	159,911	3%	170,141	4%	-9.7%	6.4%
Urban	89,412	2%	149,593	3%	128,183	3%	67.3%	-14.3%
Urban Core	25,371	1%	41,949	1%	37,479	1%	65.3%	-10.7%
Bay Area Total	4,575,237	100%	4,575,237	100%	4,575,237	100%	0.0%	0.0%

Table A.2 (continued)
Socio-Economic Forecasts by Urban/Suburban Density Level
ABAG Projections 2007 and ABAG 2035 Land Use Alternative (2035-LUA)

5. Employed Residents

Density Group	Year 2006	% of Total	Year 2035	% of Total	2035 Land Use Alternative	% of Total	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Rural	184,254	6%	243,972	5%	231,362	4%	32.4%	-5.2%
Rural-Suburban	170,155	5%	188,833	4%	222,437	4%	11.0%	17.8%
Suburban-Dispersed	931,439	28%	1,180,258	24%	1,136,932	22%	26.7%	-3.7%
Suburban-Dense	867,265	26%	1,057,188	21%	1,154,634	22%	21.9%	9.2%
Urban	682,985	21%	1,426,551	28%	1,379,132	26%	108.9%	-3.3%
Urban Core	446,305	14%	919,699	18%	1,160,161	22%	106.1%	26.1%
Bay Area Total	3,282,403	100%	5,016,501	100%	5,284,658	100%	52.8%	5.3%

6. Total Employment

Density Group	Year 2006	% of Total	Year 2035	% of Total	2035 Land Use Alternative	% of Total	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Rural	191,900	5%	220,614	4%	223,559	4%	15.0%	1.3%
Rural-Suburban	158,753	5%	161,355	3%	180,322	3%	1.6%	11.8%
Suburban-Dispersed	889,825	25%	1,146,685	22%	1,031,312	20%	28.9%	-10.1%
Suburban-Dense	868,670	25%	840,567	16%	1,019,954	19%	-3.2%	21.3%
Urban	679,643	19%	1,609,539	31%	1,380,358	26%	136.8%	-14.2%
Urban Core	709,799	20%	1,269,032	24%	1,427,063	27%	78.8%	12.5%
Bay Area Total	3,498,590	100%	5,247,792	100%	5,262,568	100%	50.0%	0.3%

7. Net In-Commute (Total Employment Less Employed Residents)

Density Group	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Rural	7,646	-23,358	-7,803	-405.5%	-66.6%
Rural-Suburban	-11,402	-27,478	-42,115	141.0%	53.3%
Suburban-Dispersed	-41,614	-33,573	-105,620	-19.3%	214.6%
Suburban-Dense	1,405	-216,621	-134,680	-15517.9%	-37.8%
Urban	-3,342	182,988	1,226	-5575.4%	-99.3%
Urban Core	263,494	349,333	266,902	32.6%	-23.6%
Bay Area Total	216,187	231,291	-22,090	7.0%	-109.6%

8. Population Age 65+

Density Group	Year 2006	% of Total	Year 2035	% of Total	2035 Land Use Alternative	% of Total	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Rural	56,195	7%	119,741	6%	117,051	6%	113.1%	-2.2%
Rural-Suburban	41,615	5%	81,015	4%	92,385	4%	94.7%	14.0%
Suburban-Dispersed	264,917	32%	517,249	25%	509,896	24%	95.2%	-1.4%
Suburban-Dense	217,405	26%	447,743	22%	475,070	22%	105.9%	6.1%
Urban	155,125	19%	549,683	27%	508,698	24%	254.3%	-7.5%
Urban Core	102,391	12%	347,620	17%	408,625	19%	239.5%	17.5%
Bay Area Total	837,648	100%	2,063,051	100%	2,111,725	100%	146.3%	2.4%

Table A.2 (continued)
Socio-Economic Forecasts by Urban/Suburban Density Level
ABAG Projections 2007 and ABAG 2035 Land Use Alternative (2035-LUA)

9. Residential Acres

Density Group	Year 2006	% of Total	Year 2035	% of Total	2035 Land Use Alternative	% of Total	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Rural	196,984	32%	212,444	31%	210,950	32%	7.8%	-0.7%
Rural-Suburban	61,000	10%	65,097	10%	68,728	10%	6.7%	5.6%
Suburban-Dispersed	193,467	32%	208,749	31%	198,168	30%	7.9%	-5.1%
Suburban-Dense	98,106	16%	94,889	14%	99,214	15%	-3.3%	4.6%
Urban	49,062	8%	79,058	12%	70,142	11%	61.1%	-11.3%
Urban Core	11,776	2%	21,275	3%	18,542	3%	80.7%	-12.8%
Bay Area Total	610,395	100%	681,512	100%	665,744	100%	11.7%	-2.3%

10. Commercial/Industrial Acres

Density Group	Year 2006	% of Total	Year 2035	% of Total	2035 Land Use Alternative	% of Total	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Rural	53,658	23%	49,450	20%	50,077	21%	-7.8%	1.3%
Rural-Suburban	26,845	12%	18,137	7%	28,532	12%	-32.4%	57.3%
Suburban-Dispersed	73,057	32%	83,966	34%	69,935	29%	14.9%	-16.7%
Suburban-Dense	44,761	19%	34,468	14%	39,352	17%	-23.0%	14.2%
Urban	25,103	11%	47,753	20%	38,694	16%	90.2%	-19.0%
Urban Core	6,309	3%	11,023	5%	11,066	5%	74.7%	0.4%
Bay Area Total	229,733	100%	244,797	100%	237,656	100%	6.6%	-2.9%

11. Gross Population Density (Total Population per Square Mile)

Density Group	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Rural	72.7	84.4	81.5	16.1%	-3.3%
Rural-Suburban	656.8	673.6	684.1	2.6%	1.6%
Suburban-Dispersed	2,455.3	2,248.3	2,428.0	-8.4%	8.0%
Suburban-Dense	6,818.9	7,405.8	7,479.0	8.6%	1.0%
Urban	11,256.5	10,973.4	11,768.4	-2.5%	7.2%
Urban Core	24,140.3	26,522.8	33,070.1	9.9%	24.7%
Bay Area Total	1,001.5	1,263.4	1,277.3	26.1%	1.1%

12. Gross Employment Density (Total Employment per Square Mile)

Density Group	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Rural	36.0	42.7	42.7	18.7%	0.0%
Rural-Suburban	288.5	322.1	327.3	11.6%	1.6%
Suburban-Dispersed	1,095.4	1,224.8	1,223.8	11.8%	-0.1%
Suburban-Dense	3,140.0	3,364.1	3,836.6	7.1%	14.0%
Urban	4,864.8	6,886.1	6,891.9	41.5%	0.1%
Urban Core	17,905.1	19,361.1	24,368.9	8.1%	25.9%
Bay Area Total	489.4	734.1	736.1	50.0%	0.3%

Table A.2 (continued)
Socio-Economic Forecasts by Urban/Suburban Density Level
ABAG Projections 2007 and ABAG 2035 Land Use Alternative (2035-LUA)

13. Developed Land (Residential + Commercial/Industrial) as Share of Total Land

Density Group	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Rural	7.3%	7.9%	7.8%	7.9%	-1.6%
Rural-Suburban	24.9%	26.0%	27.6%	4.1%	6.3%
Suburban-Dispersed	51.3%	48.9%	49.7%	-4.7%	1.8%
Suburban-Dense	80.7%	80.9%	81.4%	0.2%	0.7%
Urban	82.9%	84.8%	84.9%	2.2%	0.2%
Urban Core	71.3%	77.0%	79.0%	8.0%	2.6%
Bay Area Total	18.4%	20.2%	19.7%	10.3%	-2.5%

14. Mean Household Income (2007 dollars)

Density Group	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Rural	$128,251	$165,943	$180,063	29.4%	8.5%
Rural-Suburban	$123,682	$173,051	$175,008	39.9%	1.1%
Suburban-Dispersed	$123,202	$162,218	$167,735	31.7%	3.4%
Suburban-Dense	$96,744	$134,456	$137,778	39.0%	2.5%
Urban	$84,225	$114,435	$112,028	35.9%	-2.1%
Urban Core	$86,439	$107,168	$107,198	24.0%	0.0%
Bay Area Total	$103,031	$133,072	$134,785	29.2%	1.3%

15. Number of Low Income Households (Less Than $42,700 in 2007 dollars)

Density Group	Year 2006	% of Total	Year 2035	% of Total	2035 Land Use Alternative	% of Total	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Rural	25,018	4%	19,753	4%	11,382	2%	-21.0%	-42.4%
Rural-Suburban	20,188	3%	12,453	2%	9,543	2%	-38.3%	-23.4%
Suburban-Dispersed	117,195	19%	74,770	14%	58,878	11%	-36.2%	-21.3%
Suburban-Dense	158,449	25%	86,755	16%	87,220	16%	-45.2%	0.5%
Urban	166,588	27%	167,538	31%	157,175	30%	0.6%	-6.2%
Urban Core	135,184	22%	171,064	32%	205,700	39%	26.5%	20.2%
Bay Area Total	622,622	100%	532,333	100%	529,898	100%	-14.5%	-0.5%

16. Share, Low Income Households (Less Than $42,700 in 2007 dollars) of Total Households

Density Group	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Rural	17.6%	12.1%	7.3%	-31.0%	-40.1%
Rural-Suburban	16.1%	10.3%	7.1%	-36.2%	-30.9%
Suburban-Dispersed	16.1%	9.6%	7.9%	-40.0%	-18.1%
Suburban-Dense	23.3%	12.8%	12.0%	-44.9%	-6.1%
Urban	30.7%	18.5%	18.7%	-39.7%	0.9%
Urban Core	35.0%	26.3%	28.3%	-25.0%	7.7%
Bay Area Total	23.9%	16.2%	15.9%	-32.3%	-1.6%

Table A.3
Regional Household Vehicle Availability Characteristics by Income Level
Bay Area Regional Totals: MTC Forecasts based on ABAG Projections 2007

Household Income Level	Year 2006	% of Total	Year 2035 Baseline	% of Total	Year 2035 Land Use Alternative	% of Total
1. Total Households						
Low	622,622	24%	532,333	16%	529,898	16%
Medium-Low	516,176	20%	623,187	19%	619,877	19%
Medium-High	656,195	25%	910,799	28%	912,882	27%
High	810,759	31%	1,226,202	37%	1,267,050	38%
Total	2,605,752	100%	3,292,521	100%	3,329,707	100%
2. Vehicles Available in Household						
Low	637,938	14%	487,824	8%	433,086	8%
Medium-Low	852,956	19%	960,450	16%	893,036	16%
Medium-High	1,320,227	29%	1,760,741	30%	1,735,742	30%
High	1,782,659	39%	2,642,575	45%	2,678,846	47%
Total	4,593,780	100%	5,851,590	100%	5,740,710	100%
3. Average Number of Vehicles Available in Household						
Low	1.025		0.916		0.817	
Medium-Low	1.652		1.541		1.441	
Medium-High	2.012		1.933		1.901	
High	2.199		2.155		2.114	
Total	1.763		1.777		1.724	
4. Households with Zero Vehicles						
Low	172,270	65%	178,187	52%	209,417	48%
Medium-Low	47,360	18%	75,557	22%	100,589	23%
Medium-High	28,149	11%	52,682	15%	67,613	15%
High	16,703	6%	34,705	10%	59,098	14%
Total	264,482	100%	341,131	100%	436,717	100%
5. Share of Households with Zero Vehicles						
Low	27.7%		33.5%		39.5%	
Medium-Low	9.2%		12.1%		16.2%	
Medium-High	4.3%		5.8%		7.4%	
High	2.1%		2.8%		4.7%	
Total	10.1%		10.4%		13.1%	

Low Income is Less Than $42,700 in 2007 dollars.
Medium-Low Income is between $42,700 and $76,800 in 2007 dollars.
Medium-High Income is between $76,800 and $128,000 in 2007 dollars.
High Income isGreater Than $128,000 in 2007 dollars.

Table A.3 (continued)
Regional Household Vehicle Availability Characteristics by Income Level
Bay Area Regional Totals: MTC Forecasts based on ABAG Projections 2007

Household Income Level	Year 2006	% of Total	Year 2035 Baseline	% of Total	Year 2035 Land Use Alternative	% of Total
6. Households with Two-or-More Vehicles						
Low	123,922	8%	88,347	5%	74,573	4%
Medium-Low	254,514	17%	273,094	14%	247,771	13%
Medium-High	459,322	31%	597,642	31%	590,377	31%
High	662,877	44%	969,260	50%	985,069	52%
Total	1,500,635	100%	1,928,343	100%	1,897,790	100%
7. Share of Households with Two-or-More Vehicles						
Low	19.9%		16.6%		14.1%	
Medium-Low	49.3%		43.8%		40.0%	
Medium-High	70.0%		65.6%		64.7%	
High	81.8%		79.0%		77.7%	
Total	57.6%		58.6%		57.0%	
8. Mean Household Income (2007 dollars)						
Low	$22,806		$23,887		$23,660	
Medium-Low	$59,498		$58,506		$58,574	
Medium-High	$97,996		$94,411		$94,520	
High	$221,751		$246,688		$247,553	
Total	$103,031		$133,072		$134,785	
9. Households with No Workers (Retired or Unemployed Households)						
Low	343,235	56%	325,941	43%	324,547	43%
Medium-Low	103,472	17%	150,971	20%	147,681	20%
Medium-High	85,534	14%	140,209	19%	142,824	19%
High	85,347	14%	132,294	18%	134,557	18%
Total	617,588	100%	749,415	100%	749,609	100%
10. Share of Households with No Workers						
Low	55.1%		61.2%		61.2%	
Medium-Low	20.0%		24.2%		23.8%	
Medium-High	13.0%		15.4%		15.6%	
High	10.5%		10.8%		10.6%	
Total	23.7%		22.8%		22.5%	

Low Income is Less Than $42,700 in 2007 dollars.
Medium-Low Income is between $42,700 and $76,800 in 2007 dollars.
Medium-High Income is between $76,800 and $128,000 in 2007 dollars.
High Income isGreater Than $128,000 in 2007 dollars.

Table A.4
Household Vehicle Availability Forecasts by Bay Area County
MTC Forecasts based on ABAG Projections 2007 and ABAG 2035 Land Use Alternative

1. Total Households

County	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Alameda	547,995	700,089	701,785	27.8%	0.2%
Contra Costa	371,728	485,240	446,008	30.5%	-8.1%
Marin	103,612	116,800	118,197	12.7%	1.2%
Napa	49,709	59,650	57,931	20.0%	-2.9%
San Francisco	340,805	396,309	481,546	16.3%	21.5%
San Mateo	261,503	312,030	330,383	19.3%	5.9%
Santa Clara	602,318	806,203	802,713	33.9%	-0.4%
Solano	144,109	196,220	169,353	36.2%	-13.7%
Sonoma	183,973	219,980	221,791	19.6%	0.8%
Bay Area	2,605,752	3,292,521	3,329,707	26.4%	1.1%

2. Total Household Vehicles

County	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Alameda	938,216	1,188,582	1,190,414	26.7%	0.2%
Contra Costa	708,085	939,294	852,101	32.7%	-9.3%
Marin	187,060	220,573	224,930	17.9%	2.0%
Napa	97,130	120,158	122,841	23.7%	2.2%
San Francisco	391,573	450,295	458,110	15.0%	1.7%
San Mateo	510,178	602,182	633,202	18.0%	5.2%
Santa Clara	1,125,034	1,484,332	1,451,017	31.9%	-2.2%
Solano	280,507	401,934	353,324	43.3%	-12.1%
Sonoma	355,997	444,241	454,772	24.8%	2.4%
Bay Area	4,593,780	5,851,590	5,740,710	27.4%	-1.9%

3. Average Vehicles per Household

County	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Alameda	1.71	1.70	1.70	-0.8%	-0.1%
Contra Costa	1.90	1.94	1.91	1.6%	-1.3%
Marin	1.81	1.89	1.90	4.6%	0.8%
Napa	1.95	2.01	2.12	3.1%	5.3%
San Francisco	1.15	1.14	0.95	-1.1%	-16.3%
San Mateo	1.95	1.93	1.92	-1.1%	-0.7%
Santa Clara	1.87	1.84	1.81	-1.4%	-1.8%
Solano	1.95	2.05	2.09	5.2%	1.9%
Sonoma	1.94	2.02	2.05	4.4%	1.5%
Bay Area	1.76	1.78	1.72	0.8%	-3.0%

Table A.4 (continued)
Household Vehicle Availability Forecasts by Bay Area County
MTC Forecasts based on ABAG Projections 2007 and ABAG 2035 Land Use Alternative

4. Zero-Vehicle Households

County	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Alameda	60,880	85,711	88,163	40.8%	2.9%
Contra Costa	23,584	26,774	29,208	13.5%	9.1%
Marin	4,939	3,815	3,776	-22.8%	-1.0%
Napa	2,477	2,401	1,598	-3.1%	-33.4%
San Francisco	93,394	114,425	194,301	22.5%	69.8%
San Mateo	14,231	17,587	19,303	23.6%	9.8%
Santa Clara	46,065	72,120	83,146	56.6%	15.3%
Solano	9,453	9,964	7,961	5.4%	-20.1%
Sonoma	9,459	8,334	9,261	-11.9%	11.1%
Bay Area	264,482	341,131	436,717	29.0%	28.0%

5. Share, Zero-Vehicle Households of Total Households

County	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Alameda	11.1%	12.2%	12.6%	10.2%	2.6%
Contra Costa	6.3%	5.5%	6.5%	-13.0%	18.7%
Marin	4.8%	3.3%	3.2%	-31.5%	-2.2%
Napa	5.0%	4.0%	2.8%	-19.2%	-31.5%
San Francisco	27.4%	28.9%	40.3%	5.4%	39.7%
San Mateo	5.4%	5.6%	5.8%	3.6%	3.7%
Santa Clara	7.6%	8.9%	10.4%	17.0%	15.8%
Solano	6.6%	5.1%	4.7%	-22.6%	-7.4%
Sonoma	5.1%	3.8%	4.2%	-26.3%	10.2%
Bay Area	10.1%	10.4%	13.1%	2.1%	26.6%

Table A.4 (continued)
Household Vehicle Availability Forecasts by Bay Area County
MTC Forecasts based on ABAG Projections 2007 and ABAG 2035 Land Use Alternative

6. Households with Two-or-More Vehicles (Multi-Vehicle Households)

County	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Alameda	305,681	389,409	391,178	27.4%	0.5%
Contra Costa	241,427	322,074	292,000	33.4%	-9.3%
Marin	63,436	77,035	79,188	21.4%	2.8%
Napa	32,773	41,365	43,685	26.2%	5.6%
San Francisco	107,454	125,550	127,873	16.8%	1.9%
San Mateo	173,075	202,513	211,937	17.0%	4.7%
Santa Clara	363,258	478,123	468,665	31.6%	-2.0%
Solano	94,199	139,314	123,976	47.9%	-11.0%
Sonoma	119,332	152,960	159,288	28.2%	4.1%
Bay Area	1,500,635	1,928,343	1,897,790	28.5%	-1.6%

7. Share of Households with Two-or-More Vehicles (% Multi-Vehicle Households)

County	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Alameda	55.8%	55.6%	55.7%	-0.3%	0.2%
Contra Costa	64.9%	66.4%	65.5%	2.2%	-1.4%
Marin	61.2%	66.0%	67.0%	7.7%	1.6%
Napa	65.9%	69.3%	75.4%	5.2%	8.7%
San Francisco	31.5%	31.7%	26.6%	0.5%	-16.2%
San Mateo	66.2%	64.9%	64.1%	-1.9%	-1.2%
Santa Clara	60.3%	59.3%	58.4%	-1.7%	-1.6%
Solano	65.4%	71.0%	73.2%	8.6%	3.1%
Sonoma	64.9%	69.5%	71.8%	7.2%	3.3%
Bay Area	57.6%	58.6%	57.0%	1.7%	-2.7%

Table A.5
Household Vehicle Availability Forecasts by Urban/Suburban Density Level
MTC Forecasts based on ABAG Projections 2007 and ABAG 2035 Land Use Alternative

1. Total Households

Density Group	Year 2006	% of Total	Year 2035	% of Total	2035 Land Use Alternative	% of Total	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Rural	142,152	5%	162,609	5%	156,427	5%	14.4%	-3.8%
Rural-Suburban	125,077	5%	120,970	4%	134,102	4%	-3.3%	10.9%
Suburban-Dispersed	729,443	28%	776,012	24%	745,761	22%	6.4%	-3.9%
Suburban-Dense	680,841	26%	676,951	21%	724,529	22%	-0.6%	7.0%
Urban	541,945	21%	904,374	27%	841,087	25%	66.9%	-7.0%
Urban Core	386,294	15%	651,605	20%	727,801	22%	68.7%	11.7%
Bay Area Total	2,605,752	100%	3,292,521	100%	3,329,707	100%	26.4%	1.1%

2. Total Household Vehicles

Density Group	Year 2006	% of Total	Year 2035	% of Total	2035 Land Use Alternative	% of Total	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Rural	297,884	6%	343,541	6%	341,136	6%	15.3%	-0.7%
Rural-Suburban	262,570	6%	257,411	4%	290,606	5%	-2.0%	12.9%
Suburban-Dispersed	1,476,071	32%	1,613,714	28%	1,564,709	27%	9.3%	-3.0%
Suburban-Dense	1,292,378	28%	1,348,767	23%	1,448,023	25%	4.4%	7.4%
Urban	866,089	19%	1,554,513	27%	1,438,102	25%	79.5%	-7.5%
Urban Core	398,787	9%	733,643	13%	658,134	11%	84.0%	-10.3%
Bay Area Total	4,593,780	100%	5,851,590	100%	5,740,710	100%	27.4%	-1.9%

3. Average Vehicles per Household

Density Group	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Rural	2.10	2.11	2.18	0.8%	3.2%
Rural-Suburban	2.10	2.13	2.17	1.4%	1.8%
Suburban-Dispersed	2.02	2.08	2.10	2.8%	0.9%
Suburban-Dense	1.90	1.99	2.00	5.0%	0.3%
Urban	1.60	1.72	1.71	7.6%	-0.5%
Urban Core	1.03	1.13	0.90	9.1%	-19.7%
Bay Area Total	1.76	1.78	1.72	0.8%	-3.0%

Table A.5 (continued)
Household Vehicle Availability Forecasts by Urban/Suburban Density Level
MTC Forecasts based on ABAG Projections 2007 and ABAG 2035 Land Use Alternative

4. Zero-Vehicle Households

Density Group	Year 2006	% of Total	Year 2035	% of Total	2035 Land Use Alternative	% of Total	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Rural	3,739	1%	3,993	1%	2,672	1%	6.8%	-33.1%
Rural-Suburban	3,605	1%	2,956	1%	2,527	1%	-18.0%	-14.5%
Suburban-Dispersed	26,852	10%	22,401	7%	19,832	5%	-16.6%	-11.5%
Suburban-Dense	42,086	16%	29,092	9%	31,966	7%	-30.9%	9.9%
Urban	64,640	24%	86,375	25%	78,362	18%	33.6%	-9.3%
Urban Core	123,560	47%	196,314	58%	301,358	69%	58.9%	53.5%
Bay Area Total	264,482	100%	341,131	100%	436,717	100%	29.0%	28.0%

5. Share, Zero-Vehicle Households of Total Households

Density Group	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Rural	2.6%	2.5%	1.7%	-6.6%	-30.4%
Rural-Suburban	2.9%	2.4%	1.9%	-15.2%	-22.9%
Suburban-Dispersed	3.7%	2.9%	2.7%	-21.6%	-7.9%
Suburban-Dense	6.2%	4.3%	4.4%	-30.5%	2.7%
Urban	11.9%	9.6%	9.3%	-19.9%	-2.5%
Urban Core	32.0%	30.1%	41.4%	-5.8%	37.4%
Bay Area Total	10.1%	10.4%	13.1%	2.1%	26.6%

6. Households with Two-or-More Vehicles (Multi-Vehicle Households)

Density Group	Year 2006	% of Total	Year 2035	% of Total	2035 Land Use Alternative	% of Total	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Rural	104,971	7%	121,805	6%	123,376	7%	16.0%	1.3%
Rural-Suburban	92,304	6%	91,124	5%	104,351	5%	-1.3%	14.5%
Suburban-Dispersed	515,747	34%	572,807	30%	558,954	29%	11.1%	-2.4%
Suburban-Dense	430,035	29%	463,710	24%	498,404	26%	7.8%	7.5%
Urban	258,929	17%	485,511	25%	446,874	24%	87.5%	-8.0%
Urban Core	98,649	7%	193,386	10%	165,831	9%	96.0%	-14.2%
Bay Area Total	1,500,635	100%	1,928,343	100%	1,897,790	100%	28.5%	-1.6%

7. Share of Households with Two-or-More Vehicles (% Multi-Vehicle Households)

Density Group	Year 2006	Year 2035	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035-LUA vs 2035 Base
Rural	73.8%	74.9%	78.9%	1.4%	5.3%
Rural-Suburban	73.8%	75.3%	77.8%	2.1%	3.3%
Suburban-Dispersed	70.7%	73.8%	75.0%	4.4%	1.5%
Suburban-Dense	63.2%	68.5%	68.8%	8.5%	0.4%
Urban	47.8%	53.7%	53.1%	12.4%	-1.0%
Urban Core	25.5%	29.7%	22.8%	16.2%	-23.2%
Bay Area Total	57.6%	58.6%	57.0%	1.7%	-2.7%

Table B.1
Historical and Projected Auto Operating Costs, 1990 - 2035

Year	Retail Gas Price (Current $)	CPI	Annual Inflation	Gas Price (1990$)	Fuel Correction Factor	Fuel Economy (MPG)	Gasoline Operating Cost (¢/mi) (1990$)	Non-Gas Operating Cost (¢/mi) (1990$)	Total Auto Operating Cost (¢/mi) (1990$)
1990	$1.241	132.1		$1.241	1.000	19.11	6.49 ¢/mi	3.05 ¢/mi	9.54 ¢/mi
1991	$1.197	137.9	4.4%	$1.147	0.960	19.90	5.76 ¢/mi	3.43 ¢/mi	9.19 ¢/mi
1992	$1.302	142.5	3.3%	$1.207	0.963	19.85	6.08 ¢/mi	3.57 ¢/mi	9.65 ¢/mi
1993	$1.299	146.3	2.7%	$1.173	0.980	19.51	6.01 ¢/mi	3.70 ¢/mi	9.71 ¢/mi
1994	$1.275	148.7	1.6%	$1.133	0.976	19.58	5.79 ¢/mi	3.45 ¢/mi	9.24 ¢/mi
1995	$1.286	151.6	2.0%	$1.121	0.964	19.81	5.66 ¢/mi	3.57 ¢/mi	9.23 ¢/mi
1996	$1.434	155.1	2.3%	$1.221	0.965	19.81	6.17 ¢/mi	3.47 ¢/mi	9.64 ¢/mi
1997	$1.448	160.4	3.4%	$1.193	0.956	19.99	5.97 ¢/mi	3.98 ¢/mi	9.94 ¢/mi
1998	$1.304	165.5	3.2%	$1.041	0.959	19.93	5.22 ¢/mi	3.48 ¢/mi	8.71 ¢/mi
1999	$1.514	172.5	4.2%	$1.159	0.965	19.80	5.85 ¢/mi	3.90 ¢/mi	9.76 ¢/mi
2000	$1.832	180.2	4.5%	$1.343	0.945	20.23	6.64 ¢/mi	4.43 ¢/mi	11.07 ¢/mi
2001	$1.800	189.9	5.4%	$1.252	0.937	20.39	6.14 ¢/mi	4.09 ¢/mi	10.23 ¢/mi
2002	$1.599	193.0	1.6%	$1.094	0.943	20.27	5.40 ¢/mi	3.60 ¢/mi	9.00 ¢/mi
2003	$1.933	196.4	1.8%	$1.300	0.932	20.50	6.34 ¢/mi	4.23 ¢/mi	10.57 ¢/mi
2004	$2.165	198.8	1.2%	$1.439	0.927	20.61	6.98 ¢/mi	4.65 ¢/mi	11.63 ¢/mi
2005	$2.522	202.7	2.0%	$1.644	0.922	20.73	7.93 ¢/mi	5.29 ¢/mi	13.22 ¢/mi
2006	$2.818	209.2	3.2%	$1.779	0.917	20.84	8.54 ¢/mi	5.69 ¢/mi	14.23 ¢/mi
2007	$3.259	215.3	2.9%	$2.000	0.912	20.95	9.55 ¢/mi	6.36 ¢/mi	15.91 ¢/mi
2010	$3.622	234.5	2.9%	$2.040	0.898	21.29	9.58 ¢/mi	6.39 ¢/mi	15.97 ¢/mi
2015	$4.301	270.6	2.9%	$2.100	0.832	22.97	9.14 ¢/mi	6.09 ¢/mi	15.23 ¢/mi
2020	$5.104	312.2	2.9%	$2.160	0.787	24.28	8.90 ¢/mi	5.93 ¢/mi	14.83 ¢/mi
2025	$6.052	360.1	2.9%	$2.220	0.752	25.40	8.74 ¢/mi	5.83 ¢/mi	14.57 ¢/mi
2030	$7.171	415.5	2.9%	$2.280	0.710	26.92	8.47 ¢/mi	5.65 ¢/mi	14.11 ¢/mi
2035	$8.490	479.3	2.9%	$2.340	0.691	27.66	8.46 ¢/mi	5.64 ¢/mi	14.10 ¢/mi

Average Gas Price, 2004-2006 (1990$)	***$1.621***	
Inflation Assumption (2007 - 2030) =		*2.90%*

Notes:
1. Future gas price of $2.34 (1990 dollars) is equivalent to $3.79/gallon in 2007 current dollars.
2. Future non-gasoline operating cost based on assumption that it is 60% of auto gasoline cost.
3. Inflation assumption is based on compounded Bay Area inflation rate, 1990-2006 (209.2/132.1 ^ (1/16)) = 2.9%/year.
4. Future year (2035) fuel economy assumes 75% of vehicles attain AB 1493 (2002, Pavley) standards.

Table B.2
Pricing Sensitivity Analysis Assumptions

Characteristic	Base Year 2006	Baseline 2035	Pricing 2035
Gas Price (2007$)	$2.82	$3.79	$7.58
Fuel Economy	20.8	27.7	27.7
Gas Price / Mile	$0.14	$0.14	$0.27
Non-Gas Price / Mile	$0.09	$0.09	$0.18
Total Auto Operating Cost per Mile (2007$)	$0.23	$0.23	$0.46
Bridge Tolls	Current 2006	Current 2007	No Change
Transit Fares	Current 2006	Current 2007	No Change
Congestion Pricing	None	None	$0.25/mile, for Freeways with Peak V/C > 0.90
Parking Costs	$26 to $460 per month	$97 to $524 per month	Add $1.00 per Hour to Peak and Off-Peak Parking Costs $105 to $532 per month

Figure B.1
Bay Bridge Tolls
1990 and Current Dollars

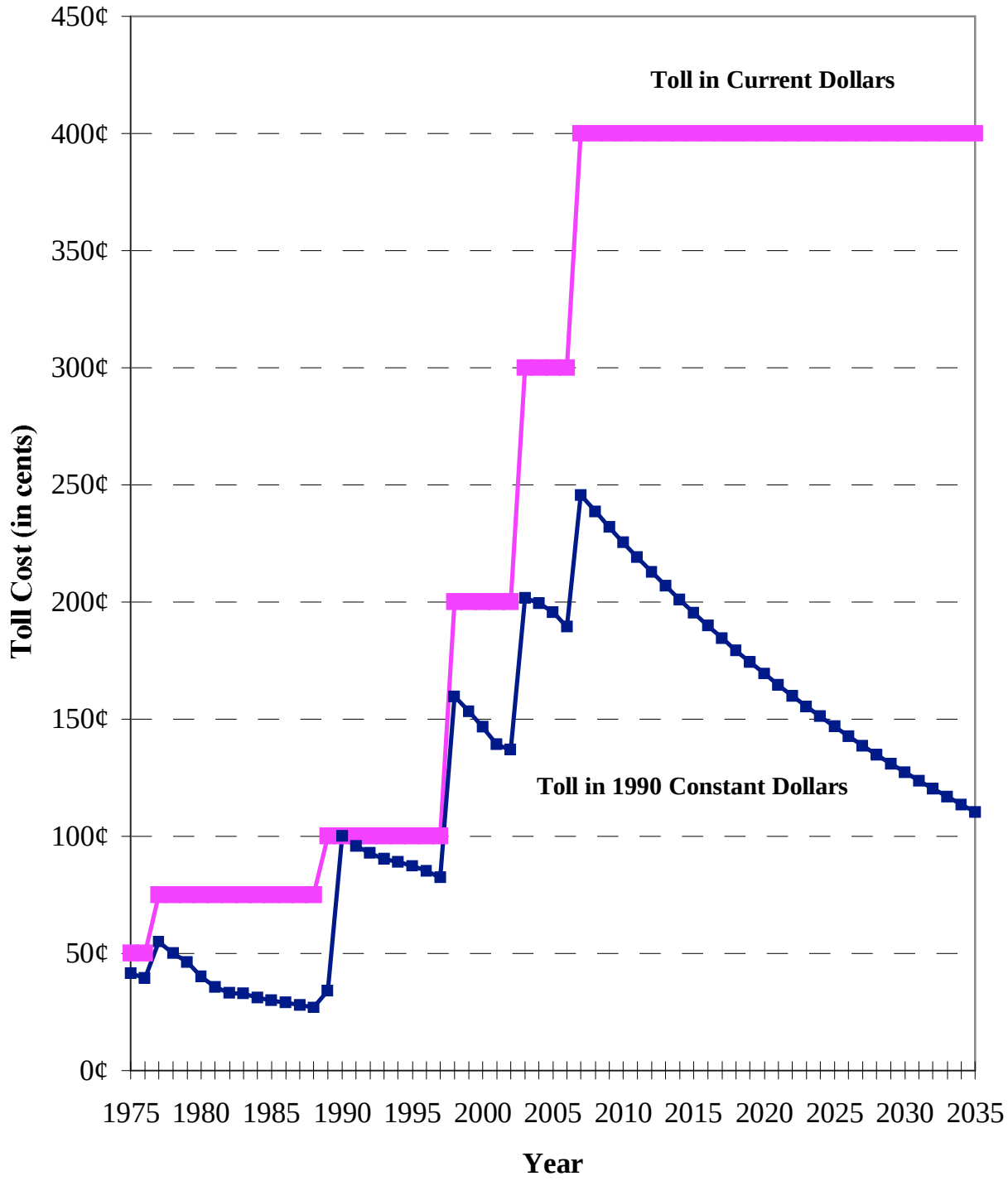


Table C.1
Change in Highway System Supply: Lane Miles

1. Lane Miles by County

County	2006 Base Year	2035 Baseline	2035 Freeway Performance Initiative (FPI)	2035 HOT Lane Alternative (HOT/Exp)
Alameda	4,034	4,193	4,210	4,228
Contra Costa	2,836	3,056	3,062	3,066
Marin	925	957	957	958
Napa	706	716	716	716
San Francisco	1,354	1,354	1,354	1,354
San Mateo	2,107	2,138	2,138	2,161
Santa Clara	5,182	5,291	5,291	5,322
Solano	1,493	1,591	1,595	1,650
Sonoma	1,696	1,764	1,764	1,764
Bay Area	20,332	21,060	21,087	21,218

2. Percent Change in Lane Miles by County

County	2035 Baseline, relative to 2006	2035 FPI, relative to Baseline 2035	2035 HOT/Exp, relative to Baseline 2035
Alameda	3.9%	0.4%	0.8%
Contra Costa	7.8%	0.2%	0.3%
Marin	3.5%	0.0%	0.1%
Napa	1.4%	0.0%	0.0%
San Francisco	0.0%	0.0%	0.0%
San Mateo	1.4%	0.0%	1.1%
Santa Clara	2.1%	0.0%	0.6%
Solano	6.6%	0.2%	3.7%
Sonoma	4.0%	0.0%	0.0%
Bay Area	3.6%	0.1%	0.8%

3. Lane Miles by Facility Type and Use Restriction (includes extraregional links)

County	2006 Base Year	2035 Baseline	2035 Freeway Performance Initiative	2035 HOT Lane Alternative
Freeway, General Purpose	4,367	4,474	4,474	4,447
Expressways, General Purpose	929	1,067	1,067	1,067
Freeway, HOV/HOT	375	572	599	757
Expressways, HOV/HOT	47	49	49	49
HOV/HOT, Subtotal	421	621	648	806
Arterials	14,719	15,002	15,002	15,002
Total	20,436	21,164	21,191	21,322

Table C.2
Change in Highway System Supply: Gross Capacity

1. Gross Capacity (Lanes Miles * Vehicles per Hour per Lane) by County

County	2006 Base Year	2035 Baseline	2035 Freeway Performance Initiative	2035 HOT Lane Alternative
Alameda	4,842,475	5,086,800	5,520,194	5,156,080
Contra Costa	3,313,623	3,592,924	3,883,902	3,612,618
Marin	1,087,283	1,158,621	1,231,374	1,159,821
Napa	725,105	738,150	771,424	738,150
San Francisco	1,293,564	1,293,564	1,409,063	1,293,564
San Mateo	2,539,312	2,596,743	2,779,207	2,641,690
Santa Clara	6,108,232	6,271,320	6,760,966	6,333,660
Solano	1,945,083	2,108,548	2,294,177	2,226,916
Sonoma	1,845,547	1,957,418	2,128,784	1,957,361
Bay Area	23,700,225	24,804,088	26,779,089	25,119,861

2. Percent Change in Gross Capacity by County

County	2035 Baseline, relative to 2006	2035 FPI, relative to Baseline 2035	2035 HOT/Exp, relative to Baseline 2035
Alameda	5.0%	8.5%	1.4%
Contra Costa	8.4%	8.1%	0.5%
Marin	6.6%	6.3%	0.1%
Napa	1.8%	4.5%	0.0%
San Francisco	0.0%	8.9%	0.0%
San Mateo	2.3%	7.0%	1.7%
Santa Clara	2.7%	7.8%	1.0%
Solano	8.4%	8.8%	5.6%
Sonoma	6.1%	8.8%	0.0%
Bay Area	4.7%	8.0%	1.3%

3. Gross Capacity by Facility Type and Use Restriction (includes extraregional links)

County	2006 Base Year	2035 Baseline	2035 Freeway Performance Initiative	2035 HOT Lane Alternative
Freeway, General Purpose	8,535,605	8,773,377	9,724,564	8,722,482
Expressways, General Purpose	1,379,815	1,585,535	1,619,059	1,585,535
Freeway, HOV/HOT	734,908	1,124,862	1,311,617	1,491,588
Expressways, HOV/HOT	68,031	71,192	73,092	71,192
HOV/HOT, Subtotal	802,939	1,196,054	1,384,709	1,562,780
Arterials	13,086,950	13,354,205	14,163,110	13,354,148
Total	23,805,309	24,909,172	26,891,441	25,224,945

Table C.3
Change in Transit Supply

1. Peak Period Transit Service Hours by Technology

	Base Year 2006	Baseline 2035	HOT/Express/Local Bus Alternative		Regional Rail + Ferry Alternative	
Technology	Total	Total	Total	% Difference, compared to Baseline	Total	% Difference, compared to Baseline
Bus Transit	31,700	31,700	53,400	68.5%	39,400	24.3%
Light Rail Transit	1,500	1,500	2,100	40.0%	1,600	6.7%
Rail Rapid Transit	2,000	2,000	2,000	0.0%	8,500	325.0%
Commuter Rail Transit	1,300	1,200	1,200	0.0%	3,500	191.7%
Ferry Transit	300	500	700	40.0%	2,000	300.0%
Total Transit	36,900	36,900	59,400	61.0%	55,000	49.1%

2. Peak Period Transit Route Miles by Technology

	Base Year 2006	Baseline 2035	HOT/Express/Local Bus Alternative		Regional Rail + Ferry Alternative	
Technology	Total	Total	Total	% Difference, compared to Baseline	Total	% Difference, compared to Baseline
Bus Transit	190,400	190,300	320,500	68.4%	236,400	24.2%
Light Rail Transit	9,000	9,100	12,300	35.2%	9,400	3.3%
Rail Rapid Transit	12,000	12,000	12,000	0.0%	51,300	327.5%
Commuter Rail Transit	7,800	7,400	7,400	0.0%	21,200	186.5%
Ferry Transit	1,900	2,700	4,000	48.1%	11,700	333.3%
Total Transit	221,100	221,500	356,200	60.8%	329,900	48.9%

3. Peak Period Transit Seat Miles per Hour by Technology

	Base Year 2006	Baseline 2035	HOT/Express/Local Bus Alternative		Regional Rail + Ferry Alternative	
Technology	Total	Total	Total	% Difference, compared to Baseline	Total	% Difference, compared to Baseline
Bus Transit	1,244,600	1,244,300	2,113,100	69.8%	1,551,000	24.6%
Light Rail Transit	203,100	204,100	274,500	34.5%	211,400	3.6%
Rail Rapid Transit	1,048,500	1,048,500	1,048,500	0.0%	3,925,600	274.4%
Commuter Rail Transit	792,700	736,900	736,900	0.0%	1,508,500	104.7%
Ferry Transit	117,400	152,500	225,100	47.6%	559,600	267.0%
Total Transit	3,406,300	3,386,300	4,398,100	29.9%	7,756,200	129.0%

Table D.1
County-to-County Home-Based Work Trips (HBW): 2000-2035

Residence County	Work County	2000 Base Year	2006 Base Year	2035 Baseline	2035 Land Use Alternative
San Francisco	San Francisco	529,568	438,412	616,582	887,924
San Francisco	San Mateo	63,561	55,589	86,788	108,607
San Francisco	Santa Clara	21,252	23,526	18,914	23,464
San Francisco	Alameda	34,622	30,479	30,116	82,444
San Francisco	Contra Costa	9,047	7,684	8,020	22,228
San Francisco	Solano	767	591	639	2,742
San Francisco	Napa	455	375	418	1,695
San Francisco	Sonoma	1,486	828	3,208	3,670
San Francisco	Marin	14,390	14,412	20,364	27,701
San Mateo	San Francisco	138,270	112,656	158,950	151,928
San Mateo	San Mateo	335,006	264,712	427,825	486,228
San Mateo	Santa Clara	96,741	75,500	88,935	93,257
San Mateo	Alameda	30,040	21,590	27,732	45,964
San Mateo	Contra Costa	3,955	2,862	3,202	5,849
San Mateo	Solano	614	412	441	1,220
San Mateo	Napa	139	151	203	522
San Mateo	Sonoma	1,482	802	7,664	3,746
San Mateo	Marin	2,027	1,752	3,386	2,998
Santa Clara	San Francisco	16,902	20,274	54,768	30,212
Santa Clara	San Mateo	76,107	80,998	136,592	129,916
Santa Clara	Santa Clara	1,182,165	957,549	1,680,976	1,789,137
Santa Clara	Alameda	69,665	73,109	132,326	139,364
Santa Clara	Contra Costa	5,945	9,842	23,114	19,376
Santa Clara	Solano	1,338	3,061	10,833	9,967
Santa Clara	Napa	190	514	2,958	3,608
Santa Clara	Sonoma	1,041	311	15,156	2,611
Santa Clara	Marin	1,543	822	4,502	1,321
Alameda	San Francisco	139,539	143,704	315,034	179,661
Alameda	San Mateo	49,186	50,456	73,363	61,797
Alameda	Santa Clara	115,880	119,595	141,381	119,240
Alameda	Alameda	709,722	693,598	1,109,662	1,267,771
Alameda	Contra Costa	65,534	66,459	98,275	110,677
Alameda	Solano	3,607	3,801	6,593	10,250
Alameda	Napa	532	714	1,339	2,498
Alameda	Sonoma	2,698	3,274	15,500	8,619
Alameda	Marin	7,458	8,753	10,749	9,693
Contra Costa	San Francisco	88,580	81,665	153,324	79,827
Contra Costa	San Mateo	11,537	11,899	17,993	10,853
Contra Costa	Santa Clara	14,976	17,239	15,499	9,007
Contra Costa	Alameda	162,891	158,252	221,300	223,094
Contra Costa	Contra Costa	405,863	409,981	684,054	685,443
Contra Costa	Solano	13,965	13,364	16,900	22,827
Contra Costa	Napa	2,599	2,964	4,961	5,918
Contra Costa	Sonoma	2,083	1,670	9,705	3,035
Contra Costa	Marin	13,912	15,343	18,495	13,155
Solano	San Francisco	12,963	12,644	22,769	9,176
Solano	San Mateo	2,676	3,288	7,120	2,380
Solano	Santa Clara	2,130	2,273	2,168	708
Solano	Alameda	18,218	20,243	31,334	20,367
Solano	Contra Costa	34,964	37,208	63,174	44,035
Solano	Solano	165,253	184,070	295,582	279,485

Table D.1
County-to-County Home-Based Work Trips (HBW): 2000-2035

Residence County	Work County	2000 Base Year	2006 Base Year	2035 Baseline	2035 Land Use Alternative
Solano	Napa	18,594	21,844	40,502	30,356
Solano	Sonoma	5,899	4,626	21,225	5,959
Solano	Marin	8,525	9,048	11,118	5,825
Napa	San Francisco	2,137	2,524	2,756	1,425
Napa	San Mateo	627	836	1,016	574
Napa	Santa Clara	585	988	725	292
Napa	Alameda	1,948	2,529	2,655	2,128
Napa	Contra Costa	3,465	4,073	5,092	4,531
Napa	Solano	7,935	9,170	12,314	14,389
Napa	Napa	65,495	67,513	90,543	94,223
Napa	Sonoma	6,986	5,017	11,834	6,793
Napa	Marin	1,671	1,842	1,838	1,223
Sonoma	San Francisco	19,770	10,788	3,306	3,401
Sonoma	San Mateo	2,821	1,996	808	747
Sonoma	Santa Clara	1,175	2,270	190	226
Sonoma	Alameda	2,255	2,597	748	1,798
Sonoma	Contra Costa	1,751	2,257	788	1,755
Sonoma	Solano	2,176	2,317	591	2,243
Sonoma	Napa	3,398	3,877	1,112	3,813
Sonoma	Sonoma	297,957	300,537	405,666	442,431
Sonoma	Marin	23,523	28,871	26,991	33,555
Marin	San Francisco	42,192	29,382	36,081	31,014
Marin	San Mateo	4,900	3,762	5,873	4,448
Marin	Santa Clara	1,522	1,233	634	501
Marin	Alameda	7,191	5,978	4,106	7,429
Marin	Contra Costa	5,029	4,085	3,038	5,545
Marin	Solano	1,421	1,061	476	1,657
Marin	Napa	644	554	282	854
Marin	Sonoma	10,362	9,325	25,251	25,150
Marin	Marin	128,598	119,558	158,083	175,061
Bay Area	**Bay Area**	**5,365,637**	**4,921,728**	**7,776,528**	**8,166,561**
San Francisco	Bay Area	675,148	571,896	785,049	1,160,475
San Mateo	Bay Area	608,274	480,437	718,338	791,712
Santa Clara	Bay Area	1,354,896	1,146,480	2,061,225	2,125,512
Alameda	Bay Area	1,094,158	1,090,354	1,771,896	1,770,206
Contra Costa	Bay Area	716,406	712,377	1,142,231	1,053,159
Solano	Bay Area	269,222	295,244	494,992	398,291
Napa	Bay Area	90,848	94,492	128,773	125,578
Sonoma	Bay Area	354,826	355,510	440,200	489,969
Marin	Bay Area	201,859	174,938	233,824	251,659
Bay Area	San Francisco	989,921	852,049	1,363,570	1,374,568
Bay Area	San Mateo	546,422	473,536	757,378	805,550
Bay Area	Santa Clara	1,436,426	1,200,173	1,949,422	2,035,832
Bay Area	Alameda	1,036,552	1,008,375	1,559,979	1,790,359
Bay Area	Contra Costa	535,554	544,451	888,757	899,439
Bay Area	Solano	197,074	217,847	344,369	344,780
Bay Area	Napa	92,047	98,506	142,318	143,487
Bay Area	Sonoma	329,995	326,390	515,209	502,014
Bay Area	Marin	201,646	200,401	255,526	270,532
Bay Area	**Bay Area**	**5,365,637**	**4,921,728**	**7,776,528**	**8,166,561**

Table D.2
County-to-County Non-Work Trips: 2000-2035

Residence County	Non-Work-End County	2000 Base Year	2006 Base Year	2035 Baseline	2035 Land Use Alternative
San Francisco	San Francisco	1,600,455	1,645,236	2,153,353	2,381,844
San Francisco	San Mateo	183,316	139,485	197,993	207,038
San Francisco	Santa Clara	20,794	8,521	9,719	10,799
San Francisco	Alameda	44,700	54,244	57,523	89,199
San Francisco	Contra Costa	13,565	18,374	17,127	24,825
San Francisco	Solano	1,442	3,332	1,875	2,162
San Francisco	Napa	531	760	573	494
San Francisco	Sonoma	1,095	2,653	1,767	1,360
San Francisco	Marin	11,027	30,217	14,248	13,399
San Mateo	San Francisco	213,793	226,628	273,124	252,585
San Mateo	San Mateo	1,432,904	1,475,012	1,874,991	1,981,463
San Mateo	Santa Clara	150,878	123,828	154,217	158,319
San Mateo	Alameda	23,722	31,078	32,104	37,199
San Mateo	Contra Costa	4,643	9,388	7,403	8,991
San Mateo	Solano	569	2,757	1,103	1,093
San Mateo	Napa	312	647	426	348
San Mateo	Sonoma	187	1,607	1,997	1,302
San Mateo	Marin	2,987	7,222	3,876	3,268
Santa Clara	San Francisco	12,075	18,665	37,704	23,134
Santa Clara	San Mateo	121,699	124,255	180,272	185,293
Santa Clara	Santa Clara	4,149,392	4,061,223	5,467,504	5,435,783
Santa Clara	Alameda	67,644	105,783	122,509	120,184
Santa Clara	Contra Costa	7,736	37,049	43,139	44,722
Santa Clara	Solano	386	12,732	7,802	8,747
Santa Clara	Napa	611	3,727	3,857	1,098
Santa Clara	Sonoma	1,867	8,563	38,032	4,582
Santa Clara	Marin	766	4,117	2,995	1,898
Alameda	San Francisco	61,328	35,298	48,732	49,101
Alameda	San Mateo	50,723	27,095	41,323	42,773
Alameda	Santa Clara	74,720	69,886	88,521	90,157
Alameda	Alameda	2,742,882	2,869,462	3,787,162	3,866,056
Alameda	Contra Costa	101,921	147,145	180,216	176,762
Alameda	Solano	4,221	14,187	10,435	8,043
Alameda	Napa	1,452	2,561	2,331	1,613
Alameda	Sonoma	1,581	3,820	5,665	3,764
Alameda	Marin	1,934	4,454	2,808	2,899
Contra Costa	San Francisco	30,584	14,635	19,832	20,705
Contra Costa	San Mateo	11,762	5,270	7,025	7,159
Contra Costa	Santa Clara	11,458	10,647	12,022	11,257
Contra Costa	Alameda	127,956	108,333	132,327	139,383
Contra Costa	Contra Costa	1,794,266	1,993,919	2,656,552	2,498,720
Contra Costa	Solano	21,651	53,241	41,830	33,549
Contra Costa	Napa	3,802	6,741	6,105	3,911
Contra Costa	Sonoma	3,096	5,448	7,025	5,283
Contra Costa	Marin	1,111	4,715	2,785	2,861
Solano	San Francisco	12,615	2,501	4,039	3,890
Solano	San Mateo	3,543	1,417	2,053	1,803
Solano	Santa Clara	3,942	4,201	4,924	4,188
Solano	Alameda	10,903	5,412	7,589	7,609
Solano	Contra Costa	31,273	18,251	31,652	30,901
Solano	Solano	711,700	832,291	1,150,608	1,002,542

Table D.2
County-to-County Non-Work Trips: 2000-2035

Residence County	Non-Work-End County	2000 Base Year	2006 Base Year	2035 Baseline	2035 Land Use Alternative
Solano	Napa	364	4,684	5,694	3,469
Solano	Sonoma	268	3,295	4,612	3,536
Solano	Marin	2,120	2,517	2,534	2,537
Napa	San Francisco	1,471	575	829	977
Napa	San Mateo	1,017	570	731	737
Napa	Santa Clara	1,294	1,394	1,418	1,402
Napa	Alameda	1,848	1,281	1,821	2,820
Napa	Contra Costa	3,993	2,976	5,120	9,773
Napa	Solano	2,880	5,868	9,573	17,133
Napa	Napa	249,937	273,248	332,722	317,234
Napa	Sonoma	8,029	15,055	13,464	13,474
Napa	Marin	621	758	870	1,067
Sonoma	San Francisco	-4,344	2,185	4,242	5,508
Sonoma	San Mateo	2,035	2,077	2,453	2,721
Sonoma	Santa Clara	5,321	5,103	4,623	4,700
Sonoma	Alameda	5,231	2,488	3,076	5,669
Sonoma	Contra Costa	4,167	2,062	2,590	7,038
Sonoma	Solano	2,212	1,976	2,051	6,561
Sonoma	Napa	16,297	13,212	12,630	16,178
Sonoma	Sonoma	908,400	996,562	1,269,447	1,243,842
Sonoma	Marin	16,753	5,007	8,049	11,774
Marin	San Francisco	43,275	16,911	30,638	35,087
Marin	San Mateo	3,507	3,417	4,699	5,723
Marin	Santa Clara	2,293	1,973	1,599	1,790
Marin	Alameda	4,069	2,055	2,317	5,551
Marin	Contra Costa	3,339	2,401	3,380	10,053
Marin	Solano	1,220	2,121	1,961	5,277
Marin	Napa	703	923	801	797
Marin	Sonoma	3,358	11,301	15,112	6,210
Marin	Marin	490,002	552,625	621,912	636,470
Bay Area	**Bay Area**	**15,671,199**	**16,334,653**	**21,331,762**	**21,401,166**
San Francisco	Bay Area	1,876,925	1,902,822	2,454,178	2,731,120
San Mateo	Bay Area	1,829,995	1,878,167	2,349,241	2,444,568
Santa Clara	Bay Area	4,362,176	4,376,114	5,903,814	5,825,441
Alameda	Bay Area	3,040,760	3,173,908	4,167,193	4,241,168
Contra Costa	Bay Area	2,005,686	2,202,949	2,885,503	2,722,828
Solano	Bay Area	776,728	874,569	1,213,705	1,060,475
Napa	Bay Area	271,091	301,725	366,548	364,617
Sonoma	Bay Area	956,072	1,030,672	1,309,161	1,303,991
Marin	Bay Area	551,766	593,727	682,419	706,958
Bay Area	San Francisco	1,971,252	1,962,634	2,572,493	2,772,831
Bay Area	San Mateo	1,810,505	1,778,598	2,311,540	2,434,710
Bay Area	Santa Clara	4,420,092	4,286,776	5,744,547	5,718,395
Bay Area	Alameda	3,028,955	3,180,136	4,146,428	4,273,670
Bay Area	Contra Costa	1,964,902	2,231,565	2,947,179	2,811,785
Bay Area	Solano	746,283	928,505	1,227,238	1,085,107
Bay Area	Napa	274,008	306,503	365,139	345,142
Bay Area	Sonoma	927,880	1,048,304	1,357,121	1,283,353
Bay Area	Marin	527,322	611,632	660,077	676,173
Bay Area	**Bay Area**	**15,671,199**	**16,334,653**	**21,331,762**	**21,401,166**

Table D.3
County-to-County Total Trips: 2000-2035

Production County	Attraction County	2000 Base Year	2006 Base Year	2035 Baseline	2035 Land Use Alternative
San Francisco	San Francisco	2,130,023	2,083,648	2,769,935	3,269,768
San Francisco	San Mateo	246,877	195,074	284,781	315,645
San Francisco	Santa Clara	42,046	32,047	28,633	34,263
San Francisco	Alameda	79,322	84,723	87,639	171,643
San Francisco	Contra Costa	22,612	26,058	25,147	47,053
San Francisco	Solano	2,209	3,923	2,514	4,904
San Francisco	Napa	986	1,135	991	2,189
San Francisco	Sonoma	2,581	3,481	4,975	5,030
San Francisco	Marin	25,417	44,629	34,612	41,100
San Mateo	San Francisco	352,063	339,284	432,074	404,513
San Mateo	San Mateo	1,767,910	1,739,724	2,302,816	2,467,691
San Mateo	Santa Clara	247,619	199,328	243,152	251,576
San Mateo	Alameda	53,762	52,668	59,836	83,163
San Mateo	Contra Costa	8,598	12,250	10,605	14,840
San Mateo	Solano	1,183	3,169	1,544	2,313
San Mateo	Napa	451	798	629	870
San Mateo	Sonoma	1,669	2,409	9,661	5,048
San Mateo	Marin	5,014	8,974	7,262	6,266
Santa Clara	San Francisco	28,977	38,939	92,472	53,346
Santa Clara	San Mateo	197,806	205,253	316,864	315,209
Santa Clara	Santa Clara	5,331,557	5,018,772	7,148,480	7,224,920
Santa Clara	Alameda	137,309	178,892	254,835	259,548
Santa Clara	Contra Costa	13,681	46,891	66,253	64,098
Santa Clara	Solano	1,724	15,793	18,635	18,714
Santa Clara	Napa	801	4,241	6,815	4,706
Santa Clara	Sonoma	2,908	8,874	53,188	7,193
Santa Clara	Marin	2,309	4,939	7,497	3,219
Alameda	San Francisco	200,867	179,002	363,766	228,762
Alameda	San Mateo	99,909	77,551	114,686	104,570
Alameda	Santa Clara	190,600	189,481	229,902	209,397
Alameda	Alameda	3,452,604	3,563,060	4,896,824	5,133,827
Alameda	Contra Costa	167,455	213,604	278,491	287,439
Alameda	Solano	7,828	17,988	17,028	18,293
Alameda	Napa	1,984	3,275	3,670	4,111
Alameda	Sonoma	4,279	7,094	21,165	12,383
Alameda	Marin	9,392	13,207	13,557	12,592
Contra Costa	San Francisco	119,164	96,300	173,156	100,532
Contra Costa	San Mateo	23,299	17,169	25,018	18,012
Contra Costa	Santa Clara	26,434	27,886	27,521	20,264
Contra Costa	Alameda	290,847	266,585	353,627	362,477
Contra Costa	Contra Costa	2,200,129	2,403,900	3,340,606	3,184,163
Contra Costa	Solano	35,616	66,605	58,730	56,376
Contra Costa	Napa	6,401	9,705	11,066	9,829
Contra Costa	Sonoma	5,179	7,118	16,730	8,318
Contra Costa	Marin	15,023	20,058	21,280	16,016
Solano	San Francisco	25,578	15,145	26,808	13,066
Solano	San Mateo	6,219	4,705	9,173	4,183
Solano	Santa Clara	6,072	6,474	7,092	4,896
Solano	Alameda	29,121	25,655	38,923	27,976
Solano	Contra Costa	66,237	55,459	94,826	74,936
Solano	Solano	876,953	1,016,361	1,446,190	1,282,027

Table D.3
County-to-County Total Trips: 2000-2035

Production County	Attraction County	2000 Base Year	2006 Base Year	2035 Baseline	2035 Land Use Alternative
Solano	Napa	18,958	26,528	46,196	33,825
Solano	Sonoma	6,167	7,921	25,837	9,495
Solano	Marin	10,645	11,565	13,652	8,362
Napa	San Francisco	3,608	3,099	3,585	2,402
Napa	San Mateo	1,644	1,406	1,747	1,311
Napa	Santa Clara	1,879	2,382	2,143	1,694
Napa	Alameda	3,796	3,810	4,476	4,948
Napa	Contra Costa	7,458	7,049	10,212	14,304
Napa	Solano	10,815	15,038	21,887	31,522
Napa	Napa	315,432	340,761	423,265	411,457
Napa	Sonoma	15,015	20,072	25,298	20,267
Napa	Marin	2,292	2,600	2,708	2,290
Sonoma	San Francisco	15,426	12,973	7,548	8,909
Sonoma	San Mateo	4,856	4,073	3,261	3,468
Sonoma	Santa Clara	6,496	7,373	4,813	4,926
Sonoma	Alameda	7,486	5,085	3,824	7,467
Sonoma	Contra Costa	5,918	4,319	3,378	8,793
Sonoma	Solano	4,388	4,293	2,642	8,804
Sonoma	Napa	19,695	17,089	13,742	19,991
Sonoma	Sonoma	1,206,357	1,297,099	1,675,113	1,686,273
Sonoma	Marin	40,276	33,878	35,040	45,329
Marin	San Francisco	85,467	46,293	66,719	66,101
Marin	San Mateo	8,407	7,179	10,572	10,171
Marin	Santa Clara	3,815	3,206	2,233	2,291
Marin	Alameda	11,260	8,033	6,423	12,980
Marin	Contra Costa	8,368	6,486	6,418	15,598
Marin	Solano	2,641	3,182	2,437	6,934
Marin	Napa	1,347	1,477	1,083	1,651
Marin	Sonoma	13,720	20,626	40,363	31,360
Marin	Marin	618,600	672,183	779,995	811,531
Bay Area	**Bay Area**	**21,036,836**	**21,256,381**	**29,108,290**	**29,567,727**
San Francisco	Bay Area	2,552,073	2,474,718	3,239,227	3,891,595
San Mateo	Bay Area	2,438,269	2,358,604	3,067,579	3,236,280
Santa Clara	Bay Area	5,717,072	5,522,594	7,965,039	7,950,953
Alameda	Bay Area	4,134,918	4,264,262	5,939,089	6,011,374
Contra Costa	Bay Area	2,722,092	2,915,326	4,027,734	3,775,987
Solano	Bay Area	1,045,950	1,169,813	1,708,697	1,458,766
Napa	Bay Area	361,939	396,217	495,321	490,195
Sonoma	Bay Area	1,310,898	1,386,182	1,749,361	1,793,960
Marin	Bay Area	753,625	768,665	916,243	958,617
Bay Area	San Francisco	2,961,173	2,814,683	3,936,063	4,147,399
Bay Area	San Mateo	2,356,927	2,252,134	3,068,918	3,240,260
Bay Area	Santa Clara	5,856,518	5,486,949	7,693,969	7,754,227
Bay Area	Alameda	4,065,507	4,188,511	5,706,407	6,064,029
Bay Area	Contra Costa	2,500,456	2,776,016	3,835,936	3,711,224
Bay Area	Solano	943,357	1,146,352	1,571,607	1,429,887
Bay Area	Napa	366,055	405,009	507,457	488,629
Bay Area	Sonoma	1,257,875	1,374,694	1,872,330	1,785,367
Bay Area	Marin	728,968	812,033	915,603	946,705
Bay Area	**Bay Area**	**21,036,836**	**21,256,381**	**29,108,290**	**29,567,727**

Table D.4
Average and Median Trip Lengths by Trip Purpose: 2006-2035

1. Average (Mean)Trip Length (in Miles)

Trip Purpose	2006 Base Year	2035 Baseline	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035 LUA vs 2035 Base
Home-Based Work, Low Income	10.43	13.15	9.41	26.1%	-28.4%
Home-Based Work, Medium-Low Income	10.50	11.76	8.78	12.0%	-25.3%
Home-Based Work, Medium-High Income	11.49	11.53	9.58	0.3%	-16.9%
Home-Based Work, High Income	12.89	11.96	10.94	-7.2%	-8.5%
Home-Based Work, TOTAL	11.77	11.86	10.10	0.8%	-14.8%
Home-Based Shop/Other	5.11	5.15	4.57	0.8%	-11.3%
Home-Based Social/Recreation	6.12	5.71	5.80	-6.7%	1.6%
Non-Home-Based	5.59	5.25	5.24	-6.1%	-0.2%
Home-Based Grade School	2.50	2.34	2.37	-6.4%	1.3%
Home-Based High School	3.40	3.43	3.27	0.9%	-4.7%
Home-Based College	8.99	9.26	8.45	3.0%	-8.7%
Small Trucks (2-axles, 6-tire)	13.27	12.56	12.57	-5.4%	0.1%
Medium Trucks (3-axles)	10.39	9.82	9.88	-5.5%	0.6%
Large Trucks (4-or-more-axles)	25.86	25.21	24.70	-2.5%	-2.0%
Very Small Trucks (2-axles, 4-tire)	2.45	2.33	2.35	-4.9%	0.9%
TOTAL, Personal Travel	6.79	6.95	6.37	2.4%	-8.3%

2. Median Trip Length (in Miles)

Trip Purpose	2006 Base Year	2035 Baseline	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035 LUA vs 2035 Base
Home-Based Work, Low Income	4.40	4.08	2.98	-7.3%	-27.0%
Home-Based Work, Medium-Low Income	5.69	5.28	4.04	-7.2%	-23.5%
Home-Based Work, Medium-High Income	7.15	6.49	5.53	-9.2%	-14.8%
Home-Based Work, High Income	8.65	7.67	6.68	-11.3%	-12.9%
Home-Based Work, TOTAL	7.01	6.74	5.65	-3.9%	-16.2%
Home-Based Shop/Other	2.56	2.46	2.37	-3.9%	-3.7%
Home-Based Social/Recreation	2.67	2.55	2.54	-4.5%	-0.4%
Non-Home-Based	2.29	2.17	2.16	-5.2%	-0.5%
Home-Based Grade School	1.22	1.19	1.19	-2.5%	0.0%
Home-Based High School	2.09	2.06	2.08	-1.4%	1.0%
Home-Based College	4.70	4.64	4.45	-1.3%	-4.1%
Small Trucks (2-axles, 6-tire)	9.31	8.68	8.66	-6.8%	-0.2%
Medium Trucks (3-axles)	6.92	6.46	6.51	-6.6%	0.8%
Large Trucks (4-or-more-axles)	22.87	21.94	21.25	-4.1%	-3.1%
Very Small Trucks (2-axles, 4-tire)	1.46	1.43	1.45	-2.1%	1.4%
TOTAL, Personal Travel	2.89	2.89	2.78	0.0%	-3.8%

Table D.4 (continued)
Average and Median Trip Lengths by Trip Purpose: 2006-2035

3. Average Weekday Daily Person Trips

Trip Purpose	2006 Base Year	2035 Baseline	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035 LUA vs 2035 Base
Home-Based Work, Low Income	509,838	405,906	446,141	-20.4%	9.9%
Home-Based Work, Medium-Low Income	907,956	1,161,676	1,245,991	27.9%	7.3%
Home-Based Work, Medium-High Income	1,505,129	2,383,793	2,445,655	58.4%	2.6%
Home-Based Work, High Income	1,998,809	3,825,153	4,028,773	91.4%	5.3%
Home-Based Work, TOTAL	4,921,732	7,776,528	8,166,560	58.0%	5.0%
Home-Based Shop/Other	5,712,570	7,342,447	7,374,663	28.5%	0.4%
Home-Based Social/Recreation	2,589,294	3,362,867	3,373,787	29.9%	0.3%
Non-Home-Based	5,647,534	8,028,588	8,071,618	42.2%	0.5%
Home-Based Grade School	1,299,177	1,417,325	1,397,332	9.1%	-1.4%
Home-Based High School	553,723	604,201	592,664	9.1%	-1.9%
Home-Based College	532,348	576,337	591,107	8.3%	2.6%
Small Trucks (2-axles, 6-tire)	196,815	293,499	293,844	49.1%	0.1%
Medium Trucks (3-axles)	18,942	28,245	28,324	49.1%	0.3%
Large Trucks (4-or-more-axles)	41,661	62,285	62,357	49.5%	0.1%
Very Small Trucks (2-axles, 4-tire)	2,989,125	4,309,890	4,326,622	44.2%	0.4%
TOTAL, Personal Travel	21,256,378	29,108,293	29,567,731	36.9%	1.6%

4. Average Weekday Daily Person Miles of Travel

Trip Purpose	2006 Base Year	2035 Baseline	2035 Land Use Alternative	% Change, 2006 to 2035	% Difference, 2035 LUA vs 2035 Base
Home-Based Work, Low Income	5,317,610	5,337,664	4,198,187	0.4%	-21.3%
Home-Based Work, Medium-Low Income	9,533,538	13,661,310	10,939,801	43.3%	-19.9%
Home-Based Work, Medium-High Income	17,293,932	27,485,133	23,429,375	58.9%	-14.8%
Home-Based Work, High Income	25,764,648	45,748,830	44,074,777	77.6%	-3.7%
Home-Based Work, TOTAL	57,928,786	92,229,622	82,482,256	59.2%	-10.6%
Home-Based Shop/Other	29,191,233	37,813,602	33,702,210	29.5%	-10.9%
Home-Based Social/Recreation	15,846,479	19,201,971	19,567,965	21.2%	1.9%
Non-Home-Based	31,569,715	42,150,087	42,295,278	33.5%	0.3%
Home-Based Grade School	3,247,943	3,316,541	3,311,677	2.1%	-0.1%
Home-Based High School	1,882,658	2,072,409	1,938,011	10.1%	-6.5%
Home-Based College	4,785,809	5,336,881	4,994,854	11.5%	-6.4%
Small Trucks (2-axles, 6-tire)	2,611,735	3,686,347	3,693,619	41.1%	0.2%
Medium Trucks (3-axles)	196,807	277,366	279,841	40.9%	0.9%
Large Trucks (4-or-more-axles)	1,077,353	1,570,205	1,540,218	45.7%	-1.9%
Very Small Trucks (2-axles, 4-tire)	7,323,356	10,042,044	10,167,562	37.1%	1.2%
TOTAL, Personal Travel	144,330,807	202,302,636	188,346,446	40.2%	-6.9%

Table D.5
Trip Length Frequency Distributions by Trip Purpose: 2006-2035

1. Work Trips (Home-Based Work), Average Weekday Daily

Trip Distance (Miles)	2006 Base Year	% of Total	2035 Baseline	% of Total	2035 Land Use Alternative	% of Total
0 - 1	505,842	10.3%	838,013	10.8%	1,132,505	13.9%
1 - 2	488,996	9.9%	797,836	10.3%	902,580	11.1%
2 - 3	404,703	8.2%	638,304	8.2%	724,247	8.9%
3 - 4	328,042	6.7%	543,101	7.0%	574,231	7.0%
4 - 5	270,287	5.5%	449,202	5.8%	486,753	6.0%
5 - 10	932,508	18.9%	1,485,401	19.1%	1,539,469	18.9%
10 - 15	620,903	12.6%	919,976	11.8%	929,653	11.4%
15 - 20	408,567	8.3%	603,121	7.8%	591,429	7.2%
20+	961,884	19.5%	1,501,575	19.3%	1,285,693	15.7%
Total	4,921,732	100.0%	7,776,528	100.0%	8,166,560	100.0%

2. Non-Work Trips, Average Weekday Daily

Trip Distance (Miles)	2006 Base Year	% of Total	2035 Baseline	% of Total	2035 Land Use Alternative	% of Total
0 - 1	4,098,492	25.1%	5,480,281	25.7%	5,590,803	26.1%
1 - 2	3,248,562	19.9%	4,403,558	20.6%	4,419,514	20.7%
2 - 3	2,159,919	13.2%	2,785,031	13.1%	2,822,877	13.2%
3 - 4	1,384,983	8.5%	1,874,426	8.8%	1,825,591	8.5%
4 - 5	978,240	6.0%	1,289,980	6.0%	1,288,519	6.0%
5 - 10	2,291,966	14.0%	2,866,326	13.4%	2,842,928	13.3%
10 - 15	915,487	5.6%	1,103,792	5.2%	1,108,153	5.2%
15 - 20	442,843	2.7%	532,246	2.5%	532,251	2.5%
20+	814,155	5.0%	996,125	4.7%	970,534	4.5%
Total	16,334,646	100.0%	21,331,765	100.0%	21,401,171	100.0%

3. Total (Personal) Trips, Average Weekday Daily

Trip Distance (Miles)	2006 Base Year	% of Total	2035 Baseline	% of Total	2035 Land Use Alternative	% of Total
0 - 1	4,604,333	21.7%	6,318,295	21.7%	6,723,308	22.7%
1 - 2	3,737,558	17.6%	5,201,393	17.9%	5,322,094	18.0%
2 - 3	2,564,623	12.1%	3,423,335	11.8%	3,547,124	12.0%
3 - 4	1,713,026	8.1%	2,417,527	8.3%	2,399,823	8.1%
4 - 5	1,248,526	5.9%	1,739,182	6.0%	1,775,273	6.0%
5 - 10	3,224,474	15.2%	4,351,727	15.0%	4,382,397	14.8%
10 - 15	1,536,390	7.2%	2,023,768	7.0%	2,037,806	6.9%
15 - 20	851,409	4.0%	1,135,366	3.9%	1,123,680	3.8%
20+	1,776,039	8.4%	2,497,700	8.6%	2,256,227	7.6%
Total	21,256,378	100.0%	29,108,293	100.0%	29,567,731	100.0%

Table D.6
Average Work Trip Length by MTC Superdistrict of Residence: 2006-2035

Superdistrict/County of Residence		Total Work Trips (Residence) 2006 Base Year	2035 Baseline	2035 Land Use Alternative	Average Work Trip Length (Miles) 2006 Base Year	2035 Baseline	2035 Land Use Alternative
1	Downtown San Francisco	85,965	128,081	367,275	4.23	4.32	4.16
2	Richmond District	168,597	216,712	288,451	6.59	5.61	6.41
3	Mission District	224,242	321,362	372,768	7.86	6.61	7.38
4	Sunset District	93,092	118,894	131,980	9.52	8.40	8.76
5	Daly City/San Bruno	192,369	281,717	310,149	10.56	9.74	9.65
6	San Mateo/Burlingame	142,535	209,392	235,419	11.66	11.34	10.87
7	Redwood City/Menlo Park	145,534	227,228	246,144	10.22	11.17	10.48
8	Palo Alto/Los Altos	116,090	198,810	249,363	8.46	9.47	9.01
9	Sunnyvale/Mountain View	170,865	329,011	450,284	9.85	10.94	9.64
10	Saratoga/Cupertino	208,286	322,666	337,815	11.27	11.54	10.76
11	Central San Jose	194,301	403,036	405,069	10.51	11.89	9.26
12	Milpitas/East San Jose	241,802	443,880	351,969	11.91	13.23	10.81
13	South San Jose/Almaden	150,376	237,387	224,239	13.60	14.40	13.01
14	Gilroy/Morgan Hill	64,762	126,435	106,774	16.27	19.43	15.51
15	Livermore/Pleasanton	154,846	299,271	271,600	15.94	16.32	14.49
16	Fremont/Union City	249,515	396,260	378,002	13.60	14.10	12.72
17	Hayward/San Leandro	258,900	383,392	373,217	13.25	13.49	11.42
18	Oakland/Alameda	301,448	502,624	527,248	9.81	9.71	8.17
19	Berkeley/Albany	125,645	190,349	220,140	7.25	7.68	7.19
20	Richmond/El Cerrito	173,482	260,414	248,256	13.19	12.54	11.11
21	Concord/Martinez	165,599	257,102	257,352	12.92	12.56	10.81
22	Walnut Creek/Lamorinda	98,662	148,073	172,980	12.59	12.98	10.99
23	Danville/San Ramon	97,216	173,546	143,194	14.83	14.13	13.33
24	Antioch/Pittsburg	177,419	303,097	231,377	19.79	17.31	14.87
25	Vallejo/Benicia	108,866	171,907	141,531	16.08	15.92	13.26
26	Fairfield/Vacaville	186,377	323,086	256,759	15.45	16.91	11.82
27	Napa	68,438	95,934	88,918	12.04	11.21	9.64
28	St. Helena/Calistoga	26,054	32,839	36,660	10.66	11.38	8.38
29	Petaluma/Sonoma	126,426	151,239	172,571	12.60	9.38	9.85
30	Santa Rosa/Sebastopol	168,473	213,285	242,298	9.61	6.10	7.09
31	Healdsburg/Cloverdale	60,612	75,675	75,100	15.58	12.28	11.52
32	Novato	40,408	54,822	57,369	12.42	11.92	12.59
33	San Rafael	69,881	88,096	88,873	10.18	10.11	9.77
34	Mill Valley/Sausalito	64,649	90,906	105,416	10.82	11.13	10.59
	Bay Area	4,921,732	7,776,528	8,166,560	11.77	11.86	10.10
	San Francisco County	571,896	785,049	1,160,474	7.21	6.23	6.28
	San Mateo County	480,438	718,337	791,712	10.78	10.66	10.27
	Santa Clara County	1,146,482	2,061,225	2,125,513	11.37	12.49	10.52
	Alameda County	1,090,354	1,771,896	1,770,207	12.07	12.41	10.68
	Contra Costa County	712,378	1,142,232	1,053,159	14.91	14.11	12.15
	Solano County	295,243	494,993	398,290	15.69	16.57	12.33
	Napa County	94,492	128,773	125,578	11.66	11.26	9.27
	Sonoma County	355,511	440,199	489,969	11.69	8.29	8.74
	Marin County	174,938	233,824	251,658	10.93	10.93	10.76
	Bay Area	4,921,732	7,776,528	8,166,560	11.77	11.86	10.10

Table D.7
Average Work Trip Length by MTC Superdistrict of Work: 2006-2035

Superdistrict/County of Work		Total Work Trips (Work-End) 2006 Base Year	2035 Baseline	2035 Land Use Alternative	Average Work Trip Length (Miles) 2006 Base Year	2035 Baseline	2035 Land Use Alternative
1	Downtown San Francisco	518,737	821,206	797,782	15.48	17.82	11.08
2	Richmond District	124,094	190,930	190,324	7.59	8.76	5.62
3	Mission District	171,203	301,784	325,872	9.95	11.49	8.59
4	Sunset District	38,016	49,650	60,591	6.28	6.81	5.65
5	Daly City/San Bruno	188,710	321,967	330,980	14.62	14.37	11.81
6	San Mateo/Burlingame	117,413	182,490	209,529	12.78	11.91	10.73
7	Redwood City/Menlo Park	167,414	252,922	265,040	13.76	12.11	11.18
8	Palo Alto/Los Altos	166,835	227,260	279,053	12.39	10.63	9.40
9	Sunnyvale/Mountain View	406,437	610,861	646,495	12.61	10.43	9.12
10	Saratoga/Cupertino	157,409	226,294	229,448	10.39	9.10	8.44
11	Central San Jose	196,653	409,608	387,997	9.19	7.62	7.11
12	Milpitas/East San Jose	146,034	232,036	273,560	10.74	8.62	8.69
13	South San Jose/Almaden	66,234	127,779	114,048	10.66	9.22	9.32
14	Gilroy/Morgan Hill	60,571	115,582	105,231	12.68	11.56	11.94
15	Livermore/Pleasanton	156,092	267,271	256,086	13.80	11.04	11.66
16	Fremont/Union City	181,433	302,971	316,399	11.92	10.62	10.62
17	Hayward/San Leandro	195,817	299,216	326,990	11.32	10.77	10.60
18	Oakland/Alameda	327,364	493,491	635,439	11.51	10.77	9.95
19	Berkeley/Albany	147,670	197,029	255,444	9.34	8.88	8.84
20	Richmond/El Cerrito	105,902	173,022	190,666	12.04	12.08	11.28
21	Concord/Martinez	158,985	260,649	257,866	11.75	11.67	10.87
22	Walnut Creek/Lamorinda	112,742	144,491	175,447	12.00	11.92	10.81
23	Danville/San Ramon	83,926	128,961	121,191	14.06	12.36	13.06
24	Antioch/Pittsburg	82,897	181,635	154,268	7.13	6.99	8.00
25	Vallejo/Benicia	80,019	121,634	123,007	12.11	13.05	12.80
26	Fairfield/Vacaville	137,828	222,735	221,771	8.03	7.99	9.99
27	Napa	65,813	104,376	95,534	8.62	9.29	10.83
28	St. Helena/Calistoga	32,693	37,943	47,954	13.09	17.29	16.92
29	Petaluma/Sonoma	112,017	179,764	184,284	10.07	15.71	11.49
30	Santa Rosa/Sebastopol	174,679	278,781	255,662	8.17	17.68	9.38
31	Healdsburg/Cloverdale	39,694	56,663	62,069	9.09	20.72	13.03
32	Novato	44,799	63,482	57,704	14.64	16.07	14.61
33	San Rafael	84,615	103,139	113,291	14.02	14.46	12.76
34	Mill Valley/Sausalito	70,988	88,904	99,537	13.94	13.44	11.30
	Bay Area	4,921,733	7,776,526	8,166,559	11.77	11.86	10.10
	San Francisco County	852,050	1,363,570	1,374,569	12.81	14.75	9.49
	San Mateo County	473,537	757,379	805,549	13.86	13.02	11.32
	Santa Clara County	1,200,173	1,949,420	2,035,832	11.40	9.48	8.80
	Alameda County	1,008,376	1,559,978	1,790,358	11.58	10.55	10.28
	Contra Costa County	544,452	888,758	899,438	11.51	10.93	10.75
	Solano County	217,847	344,369	344,778	9.53	9.78	10.99
	Napa County	98,506	142,319	143,488	10.10	11.43	12.86
	Sonoma County	326,390	515,208	502,015	8.93	17.33	10.61
	Marin County	200,402	255,525	270,532	14.13	14.50	12.62
	Bay Area	4,921,733	7,776,526	8,166,559	11.77	11.86	10.10

Table E.1
Regional Vehicle Driver Trips by Alternative

	Baseline Alternative	Freeway Performance Initiative (FPI) Alternative	HOT/Express/ Local Bus Alternative	Regional Rail + Ferry Alternative
"Base" Assumptions	18,142,100 *62.3%*	18,171,000 *62.4%*	17,983,500 *61.8%*	18,022,000 *61.9%*
Pricing Sensitivity	16,551,900 *56.9%*	16,574,800 *56.9%*	16,296,300 *56.0%*	16,378,400 *56.3%*
Land Use Sensitivity	18,199,800 *61.6%*	18,213,500 *61.6%*	18,038,000 *61.0%*	18,080,800 *61.2%*
Combined Pricing + Land Use Sensitivity	16,625,100 *56.2%*	16,645,100 *56.3%*	16,391,800 *55.4%*	16,453,200 *55.6%*
Combined Pricing + Land Use + Telecommuting Sensitivity	-- --	16,095,000 *56.0%*	15,852,400 *55.1%*	-- --
Year 2006 Base	13,087,400 *61.6%*			

Upper entry is average weekday daily Vehicle Driver trips (all trip purposes combined).
This excludes commercial trips and interregional trips.
Lower entry is vehicle driver modal share.

Total Person Trips:

2006 Base Year	21,256,400
2035 Baseline	29,108,300
2035 Land Use Alternative	29,567,700
2035 Land Use + Telecomm.	28,757,100

Table E.2
Regional Transit Trips by Alternative

	Baseline Alternative	Freeway Performance Initiative (FPI) Alternative	HOT/Express/ Local Bus Alternative	Regional Rail + Ferry Alternative
"Base" Assumptions	1,775,000 *6.1%*	1,753,200 *6.0%*	2,025,500 *7.0%*	1,965,200 *6.8%*
Pricing Sensitivity	2,339,500 *8.0%*	2,327,500 *8.0%*	2,740,500 *9.4%*	2,622,200 *9.0%*
Land Use Sensitivity	1,914,000 *6.5%*	1,915,000 *6.5%*	2,181,100 *7.4%*	2,106,200 *7.1%*
Combined Pricing + Land Use Sensitivity	2,473,400 *8.4%*	2,470,600 *8.4%*	2,871,200 *9.7%*	2,758,900 *9.3%*
Combined Pricing + Land Use + Telecommuting Sensitivity	-- --	2,358,700 *8.2%*	2,750,500 *9.6%*	-- --
Year 2006 Base	1,123,300 *5.3%*			

Upper entry is average weekday daily transit trips (all trip purposes combined).
This excludes commercial trips and interregional trips.
Lower entry is transit modal share.

Total Person Trips:

2006 Base Year	21,256,400
2035 Baseline	29,108,300
2035 Land Use Alternative	29,567,700
2035 Land Use + Telecomm.	28,757,100

Table E.3
Regional Bicycle Trips by Alternative

	Baseline Alternative	Freeway Performance Initiative (FPI) Alternative	HOT/Express/ Local Bus Alternative	Regional Rail + Ferry Alternative
"Base" Assumptions	448,000 *1.5%*	445,000 *1.5%*	441,900 *1.5%*	443,300 *1.5%*
Pricing Sensitivity	769,300 *2.6%*	757,000 *2.6%*	755,600 *2.6%*	756,600 *2.6%*
Land Use Sensitivity	494,300 *1.7%*	491,000 *1.7%*	487,200 *1.6%*	488,600 *1.7%*
Combined Pricing + Land Use Sensitivity	817,000 *2.8%*	805,300 *2.7%*	802,600 *2.7%*	803,500 *2.7%*
Combined Pricing + Land Use + Telecommuting Sensitivity	-- --	781,200 *2.7%*	777,700 *2.7%*	-- --
Year 2006 Base	361,000 *1.7%*			

Upper entry is average weekday daily bicycle trips (all trip purposes combined).
This excludes commercial trips and interregional trips.
Lower entry is bicycle modal share.

Total Person Trips:

2006 Base Year	21,256,400
2035 Baseline	29,108,300
2035 Land Use Alternative	29,567,700
2035 Land Use + Telecomm.	28,757,100

Table E.4
Regional Walk Trips by Alternative

	Baseline Alternative	Freeway Performance Initiative (FPI) Alternative	HOT/Express/ Local Bus Alternative	Regional Rail + Ferry Alternative
"Base" Assumptions	2,852,800 *9.8%*	2,839,200 *9.8%*	2,834,500 *9.7%*	2,836,900 *9.7%*
Pricing Sensitivity	4,295,400 *14.8%*	4,283,000 *14.7%*	4,258,800 *14.6%*	4,264,500 *14.7%*
Land Use Sensitivity	3,185,200 *10.8%*	3,175,900 *10.7%*	3,165,000 *10.7%*	3,165,100 *10.7%*
Combined Pricing + Land Use Sensitivity	4,600,200 *15.6%*	4,587,800 *15.5%*	4,551,400 *15.4%*	4,565,600 *15.4%*
Combined Pricing + Land Use + Telecommuting Sensitivity	-- --	4,535,300 *15.8%*	4,498,800 *15.6%*	-- --
Year 2006 Base	2,166,900 *10.2%*			

Upper entry is average weekday daily walk trips (all trip purposes combined).
This excludes commercial trips and interregional trips.
Lower entry is walk modal share.

Total Person Trips:	
2006 Base Year	21,256,400
2035 Baseline	29,108,300
2035 Land Use Alternative	29,567,700
2035 Land Use + Telecomm.	28,757,100

Table E.5
Regional Home-Based Work Drive Alone Trips by Alternative

	Baseline Alternative	Freeway Performance Initiative (FPI) Alternative	HOT/Express/ Local Bus Alternative	Regional Rail + Ferry Alternative
"Base" Assumptions	5,324,200 *68.5%*	5,341,000 *68.7%*	5,282,900 *67.9%*	5,270,400 *67.8%*
Pricing Sensitivity	4,856,000 *62.4%*	4,874,000 *62.7%*	4,791,700 *61.6%*	4,787,900 *61.6%*
Land Use Sensitivity	5,509,000 *67.5%*	5,518,400 *67.6%*	5,465,700 *66.9%*	5,456,300 *66.8%*
Combined Pricing + Land Use Sensitivity	5,050,100 *61.8%*	5,069,600 *62.1%*	4,993,600 *61.1%*	4,984,500 *61.0%*
Combined Pricing + Land Use + Telecommuting Sensitivity	-- --	4,576,700 *62.2%*	4,508,600 *61.3%*	-- --
Year 2006 Base	3,493,300 *71.0%*			

Upper entry is average weekday daily drive alone trips (home-based work trips).
Lower entry is vehicle driver modal share for home-based work trips.

Total Home-Based Work Person Trips:

2006 Base Year	4,921,700
2035 Baseline	7,776,500
2035 Land Use Alternative	8,166,600
2035 Land Use + Telecomm.	7,355,900

Table E.6
Regional Home-Based Work Transit Trips by Alternative

	Baseline Alternative	Freeway Performance Initiative (FPI) Alternative	HOT/Express/ Local Bus Alternative	Regional Rail + Ferry Alternative
"Base" Assumptions	931,100 *12.0%*	916,100 *11.8%*	1,025,200 *13.2%*	1,024,400 *13.2%*
Pricing Sensitivity	1,100,600 *14.2%*	1,087,900 *14.0%*	1,227,300 *15.8%*	1,223,800 *15.7%*
Land Use Sensitivity	909,600 *11.1%*	906,600 *11.1%*	1,011,900 *12.4%*	999,700 *12.2%*
Combined Pricing + Land Use Sensitivity	1,069,500 *13.1%*	1,061,300 *13.0%*	1,203,700 *14.7%*	1,187,300 *14.5%*
Combined Pricing + Land Use + Telecommuting Sensitivity	-- --	950,400 *12.9%*	1,080,100 *14.7%*	-- --
Year 2006 Base	512,300 *10.4%*			

Upper entry is average weekday daily transit trips (home-based work trips).
Lower entry is transit modal share for home-based work trips.

Total Home-Based Work Person Trips:

2006 Base Year	4,921,700
2035 Baseline	7,776,500
2035 Land Use Alternative	8,166,600
2035 Land Use + Telecomm.	7,355,900

Table E.7
Regional Home-Based Work Bicycle Trips by Alternative

	Baseline Alternative	Freeway Performance Initiative (FPI) Alternative	HOT/Express/ Local Bus Alternative	Regional Rail + Ferry Alternative
"Base" Assumptions	110,800 *1.4%*	110,200 *1.4%*	107,600 *1.4%*	108,500 *1.4%*
Pricing Sensitivity	142,600 *1.8%*	140,700 *1.8%*	138,300 *1.8%*	138,900 *1.8%*
Land Use Sensitivity	156,100 *1.9%*	155,400 *1.9%*	151,400 *1.9%*	152,900 *1.9%*
Combined Pricing + Land Use Sensitivity	193,800 *2.4%*	191,900 *2.3%*	188,100 *2.3%*	189,000 *2.3%*
Combined Pricing + Land Use + Telecommuting Sensitivity	-- --	171,800 *2.3%*	168,000 *2.3%*	-- --
Year 2006 Base	56,900 *1.2%*			

Upper entry is average weekday daily bicycle trips (home-based work trips).
Lower entry is bicycle modal share for home-based work trips.

Total Home-Based Work Person Trips:

2006 Base Year	4,921,700
2035 Baseline	7,776,500
2035 Land Use Alternative	8,166,600
2035 Land Use + Telecomm.	7,355,900

Table E.8
Regional Home-Based Work Walk Trips by Alternative

	Baseline Alternative	Freeway Performance Initiative (FPI) Alternative	HOT/Express/ Local Bus Alternative	Regional Rail + Ferry Alternative
"Base" Assumptions	265,900 *3.4%*	265,100 *3.4%*	262,600 *3.4%*	262,700 *3.4%*
Pricing Sensitivity	309,000 *4.0%*	306,700 *3.9%*	303,800 *3.9%*	303,500 *3.9%*
Land Use Sensitivity	449,400 *5.5%*	448,600 *5.5%*	444,800 *5.4%*	445,700 *5.5%*
Combined Pricing + Land Use Sensitivity	495,400 *6.1%*	493,900 *6.0%*	489,700 *6.0%*	490,500 *6.0%*
Combined Pricing + Land Use + Telecommuting Sensitivity	-- --	443,800 *6.0%*	439,900 *6.0%*	-- --
Year 2006 Base	160,800 *3.3%*			

Upper entry is average weekday daily walk trips (home-based work trips).
Lower entry is walk modal share for home-based work trips.

Total Home-Based Work Person Trips:

2006 Base Year	4,921,700
2035 Baseline	7,776,500
2035 Land Use Alternative	8,166,600
2035 Land Use + Telecomm.	7,355,900

Table E.9
County-to-County Home-Based Work Trips by Mode: Year 2006 Base

County of Residence	County of Work	Drive Alone	Shared Ride 2	Shared Ride 3+	Transit	Bicycle	Walk	Total
San Francisco	San Francisco	163,622	38,249	11,718	154,752	12,611	57,460	438,412
San Francisco	San Mateo	43,787	5,983	1,626	3,532	331	330	55,589
San Francisco	Santa Clara	17,039	3,159	1,214	2,092	8	14	23,526
San Francisco	Alameda	18,633	3,447	1,278	7,121	0	0	30,479
San Francisco	Contra Costa	5,097	905	705	976	0	0	7,684
San Francisco	Solano	284	192	113	2	0	0	591
San Francisco	Napa	248	67	59	0	0	0	375
San Francisco	Sonoma	521	131	147	10	0	19	828
San Francisco	Marin	9,926	2,015	732	801	486	452	14,412
San Mateo	San Francisco	55,963	11,919	4,912	39,298	183	381	112,656
San Mateo	San Mateo	214,811	25,802	7,437	5,506	2,290	8,866	264,712
San Mateo	Santa Clara	64,026	6,675	1,333	2,241	950	275	75,500
San Mateo	Alameda	16,296	2,172	974	2,083	39	27	21,590
San Mateo	Contra Costa	2,275	273	121	193	0	0	2,862
San Mateo	Solano	254	120	37	0	0	0	412
San Mateo	Napa	118	14	19	0	0	0	151
San Mateo	Sonoma	490	147	164	0	0	0	802
San Mateo	Marin	1,214	422	99	15	2	0	1,752
Santa Clara	San Francisco	10,237	2,724	1,038	5,390	189	696	20,274
Santa Clara	San Mateo	63,615	9,572	1,324	5,117	683	687	80,998
Santa Clara	Santa Clara	764,832	101,266	24,766	35,999	12,872	17,815	957,549
Santa Clara	Alameda	58,547	8,626	3,334	1,503	295	804	73,109
Santa Clara	Contra Costa	7,097	1,649	1,089	7	1	0	9,842
Santa Clara	Solano	2,419	199	443	0	0	0	3,061
Santa Clara	Napa	236	196	83	0	0	0	514
Santa Clara	Sonoma	210	67	34	0	0	0	311
Santa Clara	Marin	574	158	90	0	0	0	822
Alameda	San Francisco	30,628	9,141	13,537	90,303	92	3	143,704
Alameda	San Mateo	34,110	8,601	3,164	4,236	181	165	50,456
Alameda	Santa Clara	95,834	16,321	4,310	2,788	145	196	119,595
Alameda	Alameda	503,003	74,310	22,951	47,756	13,248	32,330	693,598
Alameda	Contra Costa	53,724	6,306	2,571	3,093	323	443	66,459
Alameda	Solano	2,064	636	900	199	2	0	3,801
Alameda	Napa	566	68	79	0	1	0	714
Alameda	Sonoma	2,418	424	432	0	0	0	3,274
Alameda	Marin	6,259	1,617	813	65	0	0	8,753
Contra Costa	San Francisco	19,762	6,899	8,299	46,652	0	52	81,665
Contra Costa	San Mateo	8,164	1,346	1,256	1,130	0	3	11,899
Contra Costa	Santa Clara	12,318	3,560	619	675	66	0	17,239
Contra Costa	Alameda	119,377	18,224	5,005	14,757	567	322	158,252
Contra Costa	Contra Costa	335,108	40,388	11,814	8,967	3,112	10,593	409,981
Contra Costa	Solano	10,768	1,266	721	233	376	0	13,364
Contra Costa	Napa	1,742	708	511	0	2	0	2,964
Contra Costa	Sonoma	1,070	479	122	0	0	0	1,670
Contra Costa	Marin	10,512	2,737	1,849	245	0	0	15,343
Solano	San Francisco	4,753	1,893	3,871	2,127	0	0	12,644
Solano	San Mateo	1,770	412	873	232	0	0	3,288
Solano	Santa Clara	1,937	271	64	0	0	0	2,273
Solano	Alameda	14,145	2,786	2,056	1,247	6	4	20,243
Solano	Contra Costa	29,456	4,416	3,086	190	55	5	37,208
Solano	Solano	151,005	18,554	4,921	3,339	1,248	5,003	184,070

Table E.9
County-to-County Home-Based Work Trips by Mode: Year 2006 Base

County of Residence	County of Work	Drive Alone	Shared Ride 2	Shared Ride 3+	Transit	Bicycle	Walk	Total
Solano	Napa	17,150	2,713	1,643	107	155	77	21,844
Solano	Sonoma	3,236	739	598	0	52	0	4,626
Solano	Marin	6,799	1,470	764	4	11	0	9,048
Napa	San Francisco	1,323	285	208	706	0	2	2,524
Napa	San Mateo	666	89	81	0	0	0	836
Napa	Santa Clara	653	168	167	0	0	0	988
Napa	Alameda	1,943	321	174	90	0	0	2,529
Napa	Contra Costa	3,517	359	194	2	1	0	4,073
Napa	Solano	8,047	911	132	41	18	22	9,170
Napa	Napa	51,998	7,351	3,230	802	761	3,372	67,513
Napa	Sonoma	4,183	257	564	0	11	1	5,017
Napa	Marin	1,396	301	145	0	0	0	1,842
Sonoma	San Francisco	5,774	1,311	1,016	2,622	0	66	10,788
Sonoma	San Mateo	1,750	120	100	23	0	3	1,996
Sonoma	Santa Clara	1,491	165	369	0	0	245	2,270
Sonoma	Alameda	1,857	561	158	22	0	0	2,597
Sonoma	Contra Costa	1,987	102	168	0	0	0	2,257
Sonoma	Solano	2,093	105	114	0	0	5	2,317
Sonoma	Napa	3,320	434	111	0	5	7	3,877
Sonoma	Sonoma	244,470	29,398	6,711	3,059	3,302	13,597	300,537
Sonoma	Marin	23,047	4,508	1,075	155	34	52	28,871
Marin	San Francisco	16,758	4,426	1,007	6,744	380	68	29,382
Marin	San Mateo	2,983	577	60	133	7	3	3,762
Marin	Santa Clara	1,022	111	94	6	0	0	1,233
Marin	Alameda	5,091	521	144	223	0	0	5,978
Marin	Contra Costa	3,477	352	183	73	0	0	4,085
Marin	Solano	958	63	39	0	0	0	1,061
Marin	Napa	471	44	38	0	1	0	554
Marin	Sonoma	8,066	838	278	115	19	10	9,325
Marin	Marin	94,911	11,583	2,444	2,480	1,815	6,325	119,558
Bay Area	**Bay Area**	**3,493,301**	**517,695**	**180,722**	**512,279**	**56,936**	**160,800**	**4,921,728**
San Francisco	Bay Area	259,157	54,148	17,592	169,286	13,436	58,275	571,896
San Mateo	Bay Area	355,447	47,544	15,096	49,336	3,464	9,549	480,437
Santa Clara	Bay Area	907,767	124,457	32,201	48,016	14,040	20,002	1,146,480
Alameda	Bay Area	728,606	117,424	48,757	148,440	13,992	33,137	1,090,354
Contra Costa	Bay Area	518,821	75,607	30,196	72,659	4,123	10,970	712,377
Solano	Bay Area	230,251	33,254	17,876	7,246	1,527	5,089	295,244
Napa	Bay Area	73,726	10,042	4,895	1,641	791	3,397	94,492
Sonoma	Bay Area	285,789	36,704	9,822	5,881	3,341	13,975	355,510
Marin	Bay Area	133,737	18,515	4,287	9,774	2,222	6,406	174,938
Bay Area	San Francisco	308,820	76,847	45,606	348,594	13,455	58,728	852,049
Bay Area	San Mateo	371,656	52,502	15,921	19,909	3,492	10,057	473,536
Bay Area	Santa Clara	959,152	131,696	32,936	43,801	14,041	18,545	1,200,173
Bay Area	Alameda	738,892	110,968	36,074	74,802	14,155	33,487	1,008,375
Bay Area	Contra Costa	441,738	54,750	19,931	13,501	3,492	11,041	544,451
Bay Area	Solano	177,892	22,046	7,420	3,814	1,644	5,030	217,847
Bay Area	Napa	75,849	11,595	5,773	909	925	3,456	98,506
Bay Area	Sonoma	264,664	32,480	9,050	3,184	3,384	13,627	326,390
Bay Area	Marin	154,638	24,811	8,011	3,765	2,348	6,829	200,401
Bay Area	**Bay Area**	**3,493,301**	**517,695**	**180,722**	**512,279**	**56,936**	**160,800**	**4,921,728**

Table E.10
Share of County-to-County Home-Based Work Trips by Mode: Year 2006 Base

County of Residence	County of Work	Drive Alone	Shared Ride 2	Shared Ride 3+	Transit	Bicycle	Walk	Total
San Francisco	San Francisco	37.3%	8.7%	2.7%	35.3%	2.9%	13.1%	100.0%
San Francisco	San Mateo	78.8%	10.8%	2.9%	6.4%	0.6%	0.6%	100.0%
San Francisco	Santa Clara	72.4%	13.4%	5.2%	8.9%	0.0%	0.1%	100.0%
San Francisco	Alameda	61.1%	11.3%	4.2%	23.4%	0.0%	0.0%	100.0%
San Francisco	Contra Costa	66.3%	11.8%	9.2%	12.7%	0.0%	0.0%	100.0%
San Francisco	Solano	48.1%	32.5%	19.1%	0.3%	0.0%	0.0%	100.0%
San Francisco	Napa	66.1%	17.9%	15.7%	0.0%	0.0%	0.0%	100.0%
San Francisco	Sonoma	62.9%	15.8%	17.8%	1.2%	0.0%	2.3%	100.0%
San Francisco	Marin	68.9%	14.0%	5.1%	5.6%	3.4%	3.1%	100.0%
San Mateo	San Francisco	49.7%	10.6%	4.4%	34.9%	0.2%	0.3%	100.0%
San Mateo	San Mateo	81.1%	9.7%	2.8%	2.1%	0.9%	3.3%	100.0%
San Mateo	Santa Clara	84.8%	8.8%	1.8%	3.0%	1.3%	0.4%	100.0%
San Mateo	Alameda	75.5%	10.1%	4.5%	9.6%	0.2%	0.1%	100.0%
San Mateo	Contra Costa	79.5%	9.5%	4.2%	6.7%	0.0%	0.0%	100.0%
San Mateo	Solano	61.7%	29.1%	9.0%	0.0%	0.0%	0.0%	100.0%
San Mateo	Napa	78.1%	9.3%	12.6%	0.0%	0.0%	0.0%	100.0%
San Mateo	Sonoma	61.1%	18.3%	20.4%	0.0%	0.0%	0.0%	100.0%
San Mateo	Marin	69.3%	24.1%	5.7%	0.9%	0.1%	0.0%	100.0%
Santa Clara	San Francisco	50.5%	13.4%	5.1%	26.6%	0.9%	3.4%	100.0%
Santa Clara	San Mateo	78.5%	11.8%	1.6%	6.3%	0.8%	0.8%	100.0%
Santa Clara	Santa Clara	79.9%	10.6%	2.6%	3.8%	1.3%	1.9%	100.0%
Santa Clara	Alameda	80.1%	11.8%	4.6%	2.1%	0.4%	1.1%	100.0%
Santa Clara	Contra Costa	72.1%	16.8%	11.1%	0.1%	0.0%	0.0%	100.0%
Santa Clara	Solano	79.0%	6.5%	14.5%	0.0%	0.0%	0.0%	100.0%
Santa Clara	Napa	45.9%	38.1%	16.1%	0.0%	0.0%	0.0%	100.0%
Santa Clara	Sonoma	67.5%	21.5%	10.9%	0.0%	0.0%	0.0%	100.0%
Santa Clara	Marin	69.8%	19.2%	10.9%	0.0%	0.0%	0.0%	100.0%
Alameda	San Francisco	21.3%	6.4%	9.4%	62.8%	0.1%	0.0%	100.0%
Alameda	San Mateo	67.6%	17.0%	6.3%	8.4%	0.4%	0.3%	100.0%
Alameda	Santa Clara	80.1%	13.6%	3.6%	2.3%	0.1%	0.2%	100.0%
Alameda	Alameda	72.5%	10.7%	3.3%	6.9%	1.9%	4.7%	100.0%
Alameda	Contra Costa	80.8%	9.5%	3.9%	4.7%	0.5%	0.7%	100.0%
Alameda	Solano	54.3%	16.7%	23.7%	5.2%	0.1%	0.0%	100.0%
Alameda	Napa	79.3%	9.5%	11.1%	0.0%	0.1%	0.0%	100.0%
Alameda	Sonoma	73.9%	13.0%	13.2%	0.0%	0.0%	0.0%	100.0%
Alameda	Marin	71.5%	18.5%	9.3%	0.7%	0.0%	0.0%	100.0%
Contra Costa	San Francisco	24.2%	8.4%	10.2%	57.1%	0.0%	0.1%	100.0%
Contra Costa	San Mateo	68.6%	11.3%	10.6%	9.5%	0.0%	0.0%	100.0%
Contra Costa	Santa Clara	71.5%	20.7%	3.6%	3.9%	0.4%	0.0%	100.0%
Contra Costa	Alameda	75.4%	11.5%	3.2%	9.3%	0.4%	0.2%	100.0%
Contra Costa	Contra Costa	81.7%	9.9%	2.9%	2.2%	0.8%	2.6%	100.0%
Contra Costa	Solano	80.6%	9.5%	5.4%	1.7%	2.8%	0.0%	100.0%
Contra Costa	Napa	58.8%	23.9%	17.2%	0.0%	0.1%	0.0%	100.0%
Contra Costa	Sonoma	64.1%	28.7%	7.3%	0.0%	0.0%	0.0%	100.0%
Contra Costa	Marin	68.5%	17.8%	12.1%	1.6%	0.0%	0.0%	100.0%
Solano	San Francisco	37.6%	15.0%	30.6%	16.8%	0.0%	0.0%	100.0%
Solano	San Mateo	53.8%	12.5%	26.6%	7.1%	0.0%	0.0%	100.0%
Solano	Santa Clara	85.2%	11.9%	2.8%	0.0%	0.0%	0.0%	100.0%
Solano	Alameda	69.9%	13.8%	10.2%	6.2%	0.0%	0.0%	100.0%
Solano	Contra Costa	79.2%	11.9%	8.3%	0.5%	0.1%	0.0%	100.0%
Solano	Solano	82.0%	10.1%	2.7%	1.8%	0.7%	2.7%	100.0%

Table E.10
Share of County-to-County Home-Based Work Trips by Mode: Year 2006 Base

County of Residence	County of Work	Drive Alone	Shared Ride 2	Shared Ride 3+	Transit	Bicycle	Walk	Total
Solano	Napa	78.5%	12.4%	7.5%	0.5%	0.7%	0.4%	100.0%
Solano	Sonoma	70.0%	16.0%	12.9%	0.0%	1.1%	0.0%	100.0%
Solano	Marin	75.1%	16.2%	8.4%	0.0%	0.1%	0.0%	100.0%
Napa	San Francisco	52.4%	11.3%	8.2%	28.0%	0.0%	0.1%	100.0%
Napa	San Mateo	79.7%	10.6%	9.7%	0.0%	0.0%	0.0%	100.0%
Napa	Santa Clara	66.1%	17.0%	16.9%	0.0%	0.0%	0.0%	100.0%
Napa	Alameda	76.8%	12.7%	6.9%	3.6%	0.0%	0.0%	100.0%
Napa	Contra Costa	86.3%	8.8%	4.8%	0.0%	0.0%	0.0%	100.0%
Napa	Solano	87.8%	9.9%	1.4%	0.4%	0.2%	0.2%	100.0%
Napa	Napa	77.0%	10.9%	4.8%	1.2%	1.1%	5.0%	100.0%
Napa	Sonoma	83.4%	5.1%	11.2%	0.0%	0.2%	0.0%	100.0%
Napa	Marin	75.8%	16.3%	7.9%	0.0%	0.0%	0.0%	100.0%
Sonoma	San Francisco	53.5%	12.2%	9.4%	24.3%	0.0%	0.6%	100.0%
Sonoma	San Mateo	87.7%	6.0%	5.0%	1.2%	0.0%	0.2%	100.0%
Sonoma	Santa Clara	65.7%	7.3%	16.3%	0.0%	0.0%	10.8%	100.0%
Sonoma	Alameda	71.5%	21.6%	6.1%	0.8%	0.0%	0.0%	100.0%
Sonoma	Contra Costa	88.0%	4.5%	7.4%	0.0%	0.0%	0.0%	100.0%
Sonoma	Solano	90.3%	4.5%	4.9%	0.0%	0.0%	0.2%	100.0%
Sonoma	Napa	85.6%	11.2%	2.9%	0.0%	0.1%	0.2%	100.0%
Sonoma	Sonoma	81.3%	9.8%	2.2%	1.0%	1.1%	4.5%	100.0%
Sonoma	Marin	79.8%	15.6%	3.7%	0.5%	0.1%	0.2%	100.0%
Marin	San Francisco	57.0%	15.1%	3.4%	23.0%	1.3%	0.2%	100.0%
Marin	San Mateo	79.3%	15.3%	1.6%	3.5%	0.2%	0.1%	100.0%
Marin	Santa Clara	82.9%	9.0%	7.6%	0.5%	0.0%	0.0%	100.0%
Marin	Alameda	85.2%	8.7%	2.4%	3.7%	0.0%	0.0%	100.0%
Marin	Contra Costa	85.1%	8.6%	4.5%	1.8%	0.0%	0.0%	100.0%
Marin	Solano	90.3%	5.9%	3.7%	0.0%	0.0%	0.0%	100.0%
Marin	Napa	85.0%	7.9%	6.9%	0.0%	0.2%	0.0%	100.0%
Marin	Sonoma	86.5%	9.0%	3.0%	1.2%	0.2%	0.1%	100.0%
Marin	Marin	79.4%	9.7%	2.0%	2.1%	1.5%	5.3%	100.0%
Bay Area	**Bay Area**	**71.0%**	**10.5%**	**3.7%**	**10.4%**	**1.2%**	**3.3%**	**100.0%**
San Francisco	Bay Area	45.3%	9.5%	3.1%	29.6%	2.3%	10.2%	100.0%
San Mateo	Bay Area	74.0%	9.9%	3.1%	10.3%	0.7%	2.0%	100.0%
Santa Clara	Bay Area	79.2%	10.9%	2.8%	4.2%	1.2%	1.7%	100.0%
Alameda	Bay Area	66.8%	10.8%	4.5%	13.6%	1.3%	3.0%	100.0%
Contra Costa	Bay Area	72.8%	10.6%	4.2%	10.2%	0.6%	1.5%	100.0%
Solano	Bay Area	78.0%	11.3%	6.1%	2.5%	0.5%	1.7%	100.0%
Napa	Bay Area	78.0%	10.6%	5.2%	1.7%	0.8%	3.6%	100.0%
Sonoma	Bay Area	80.4%	10.3%	2.8%	1.7%	0.9%	3.9%	100.0%
Marin	Bay Area	76.4%	10.6%	2.5%	5.6%	1.3%	3.7%	100.0%
Bay Area	San Francisco	36.2%	9.0%	5.4%	40.9%	1.6%	6.9%	100.0%
Bay Area	San Mateo	78.5%	11.1%	3.4%	4.2%	0.7%	2.1%	100.0%
Bay Area	Santa Clara	79.9%	11.0%	2.7%	3.6%	1.2%	1.5%	100.0%
Bay Area	Alameda	73.3%	11.0%	3.6%	7.4%	1.4%	3.3%	100.0%
Bay Area	Contra Costa	81.1%	10.1%	3.7%	2.5%	0.6%	2.0%	100.0%
Bay Area	Solano	81.7%	10.1%	3.4%	1.8%	0.8%	2.3%	100.0%
Bay Area	Napa	77.0%	11.8%	5.9%	0.9%	0.9%	3.5%	100.0%
Bay Area	Sonoma	81.1%	10.0%	2.8%	1.0%	1.0%	4.2%	100.0%
Bay Area	Marin	77.2%	12.4%	4.0%	1.9%	1.2%	3.4%	100.0%
Bay Area	**Bay Area**	**71.0%**	**10.5%**	**3.7%**	**10.4%**	**1.2%**	**3.3%**	**100.0%**

Table E.11
County-to-County Total Trips by Mode: Year 2006 Base

County of Origin	County of Attr.	Driver	In-Vehicle	Transit	Bicycle	Walk	Total
San Francisco	San Francisco	713,029	920,538	452,244	31,873	678,993	2,083,648
San Francisco	San Mateo	145,286	181,308	8,424	1,946	3,396	195,074
San Francisco	Santa Clara	25,516	29,795	2,231	9	14	32,047
San Francisco	Alameda	55,080	69,655	15,068	0	0	84,723
San Francisco	Contra Costa	18,613	24,304	1,755	0	0	26,058
San Francisco	Solano	2,872	3,908	15	0	0	3,923
San Francisco	Napa	883	1,135	0	0	0	1,135
San Francisco	Sonoma	2,682	3,445	17	0	19	3,481
San Francisco	Marin	32,910	41,741	1,643	790	455	44,629
San Mateo	San Francisco	218,998	282,972	47,950	5,685	2,678	339,284
San Mateo	San Mateo	1,113,316	1,491,224	15,664	31,608	201,228	1,739,724
San Mateo	Santa Clara	155,842	189,592	2,944	3,216	3,576	199,328
San Mateo	Alameda	40,542	50,384	2,156	102	27	52,668
San Mateo	Contra Costa	9,376	12,055	195	0	0	12,250
San Mateo	Solano	2,394	3,169	0	0	0	3,169
San Mateo	Napa	639	798	0	0	0	798
San Mateo	Sonoma	1,905	2,408	0	0	0	2,409
San Mateo	Marin	6,727	8,914	17	43	0	8,974
Santa Clara	San Francisco	24,779	31,886	6,166	191	696	38,939
Santa Clara	San Mateo	158,795	195,033	6,707	1,888	1,624	205,253
Santa Clara	Santa Clara	3,222,615	4,409,989	147,259	112,878	348,646	5,018,772
Santa Clara	Alameda	137,799	175,012	1,969	959	952	178,892
Santa Clara	Contra Costa	33,607	46,882	8	1	0	46,891
Santa Clara	Solano	11,345	15,793	0	0	0	15,793
Santa Clara	Napa	2,966	4,241	0	0	0	4,241
Santa Clara	Sonoma	6,340	8,874	0	0	0	8,874
Santa Clara	Marin	3,624	4,938	0	0	0	4,939
Alameda	San Francisco	58,886	79,304	99,603	92	3	179,002
Alameda	San Mateo	59,250	72,707	4,429	251	165	77,551
Alameda	Santa Clara	156,626	185,011	3,421	730	319	189,481
Alameda	Alameda	2,126,990	2,887,989	146,557	73,070	455,445	3,563,060
Alameda	Contra Costa	161,380	202,893	6,726	2,011	1,974	213,604
Alameda	Solano	12,824	17,737	245	5	0	17,988
Alameda	Napa	2,546	3,272	0	2	0	3,275
Alameda	Sonoma	5,762	7,094	0	0	0	7,094
Alameda	Marin	10,618	13,131	75	0	0	13,207
Contra Costa	San Francisco	35,292	47,904	48,344	0	52	96,300
Contra Costa	San Mateo	13,181	16,014	1,152	0	3	17,169
Contra Costa	Santa Clara	22,251	27,138	681	66	0	27,886
Contra Costa	Alameda	206,849	245,781	18,479	1,212	1,114	266,585
Contra Costa	Contra Costa	1,534,898	2,156,818	24,662	23,786	198,635	2,403,900
Contra Costa	Solano	49,721	65,799	309	488	9	66,605
Contra Costa	Napa	7,151	9,689	1	15	0	9,705
Contra Costa	Sonoma	5,486	7,118	0	0	0	7,118
Contra Costa	Marin	15,771	19,788	269	0	0	20,058
Solano	San Francisco	8,603	12,966	2,178	0	0	15,145
Solano	San Mateo	3,318	4,473	232	0	0	4,705
Solano	Santa Clara	4,926	6,474	0	0	0	6,474
Solano	Alameda	20,102	24,347	1,298	7	4	25,655
Solano	Contra Costa	45,746	55,074	230	149	6	55,459
Solano	Solano	622,513	898,220	13,414	14,062	90,666	1,016,361

Table E.11
County-to-County Total Trips by Mode: Year 2006 Base

County of Origin	County of Attr.	Driver	In-Vehicle	Transit	Bicycle	Walk	Total
Solano	Napa	22,094	26,032	160	196	140	26,528
Solano	Sonoma	6,196	7,868	0	53	0	7,921
Solano	Marin	9,586	11,549	4	12	0	11,565
Napa	San Francisco	1,989	2,390	707	0	2	3,099
Napa	San Mateo	1,197	1,405	0	0	0	1,406
Napa	Santa Clara	1,901	2,382	0	0	0	2,382
Napa	Alameda	3,162	3,718	91	1	0	3,810
Napa	Contra Costa	5,987	7,024	3	22	0	7,049
Napa	Solano	12,511	14,793	54	102	89	15,038
Napa	Napa	214,719	296,012	2,672	6,119	35,958	340,761
Napa	Sonoma	15,715	19,909	0	161	1	20,072
Napa	Marin	2,171	2,599	0	1	0	2,600
Sonoma	San Francisco	8,420	10,283	2,624	0	66	12,973
Sonoma	San Mateo	3,473	4,047	23	0	3	4,073
Sonoma	Santa Clara	5,684	7,128	0	0	245	7,373
Sonoma	Alameda	4,158	5,063	22	0	0	5,085
Sonoma	Contra Costa	3,692	4,319	0	0	0	4,319
Sonoma	Solano	3,677	4,286	0	3	5	4,293
Sonoma	Napa	13,237	16,863	0	219	7	17,089
Sonoma	Sonoma	850,974	1,166,480	17,467	29,807	83,345	1,297,099
Sonoma	Marin	29,215	33,578	155	92	52	33,878
Marin	San Francisco	32,288	38,252	7,072	900	68	46,293
Marin	San Mateo	6,073	7,015	135	25	3	7,179
Marin	Santa Clara	2,821	3,200	6	0	0	3,206
Marin	Alameda	7,030	7,806	227	0	0	8,033
Marin	Contra Costa	5,570	6,411	76	0	0	6,486
Marin	Solano	2,649	3,179	0	3	0	3,182
Marin	Napa	1,239	1,474	0	2	0	1,477
Marin	Sonoma	17,399	20,382	136	98	10	20,626
Marin	Marin	453,408	592,945	6,945	16,068	56,225	672,183
Bay Area	**Bay Area**	**13,087,405**	**17,605,126**	**1,123,316**	**361,019**	**2,166,918**	**21,256,381**
San Francisco	Bay Area	996,871	1,275,829	481,397	34,618	682,877	2,474,718
San Mateo	Bay Area	1,549,739	2,041,516	68,926	40,654	207,509	2,358,604
Santa Clara	Bay Area	3,601,870	4,892,648	162,109	115,917	351,918	5,522,594
Alameda	Bay Area	2,594,882	3,469,138	261,056	76,161	457,906	4,264,262
Contra Costa	Bay Area	1,890,600	2,596,049	93,897	25,567	199,813	2,915,326
Solano	Bay Area	743,084	1,047,003	17,516	14,479	90,816	1,169,813
Napa	Bay Area	259,352	350,232	3,527	6,406	36,050	396,217
Sonoma	Bay Area	922,530	1,252,047	20,291	30,121	83,723	1,386,182
Marin	Bay Area	528,477	680,664	14,597	17,096	56,306	768,665
Bay Area	San Francisco	1,102,284	1,426,495	666,888	38,741	682,558	2,814,683
Bay Area	San Mateo	1,503,889	1,973,226	36,766	35,718	206,422	2,252,134
Bay Area	Santa Clara	3,598,182	4,860,709	156,542	116,899	352,800	5,486,949
Bay Area	Alameda	2,601,712	3,469,755	185,867	75,351	457,542	4,188,511
Bay Area	Contra Costa	1,818,869	2,515,780	33,655	25,969	200,615	2,776,016
Bay Area	Solano	720,506	1,026,884	14,037	14,663	90,769	1,146,352
Bay Area	Napa	265,474	359,516	2,833	6,553	36,105	405,009
Bay Area	Sonoma	912,459	1,243,578	17,620	30,119	83,375	1,374,694
Bay Area	Marin	564,030	729,183	9,108	17,006	56,732	812,033
Bay Area	**Bay Area**	**13,087,405**	**17,605,126**	**1,123,316**	**361,019**	**2,166,918**	**21,256,381**

Table E.12
Share of County-to-County Total Trips by Mode: Year 2006 Base

County of Origin	County of Attr.	Driver	In-Vehicle	Transit	Bicycle	Walk	Total
San Francisco	San Francisco	34.2%	44.2%	21.7%	1.5%	32.6%	100.0%
San Francisco	San Mateo	74.5%	92.9%	4.3%	1.0%	1.7%	100.0%
San Francisco	Santa Clara	79.6%	93.0%	7.0%	0.0%	0.0%	100.0%
San Francisco	Alameda	65.0%	82.2%	17.8%	0.0%	0.0%	100.0%
San Francisco	Contra Costa	71.4%	93.3%	6.7%	0.0%	0.0%	100.0%
San Francisco	Solano	73.2%	99.6%	0.4%	0.0%	0.0%	100.0%
San Francisco	Napa	77.8%	100.0%	0.0%	0.0%	0.0%	100.0%
San Francisco	Sonoma	77.0%	99.0%	0.5%	0.0%	0.5%	100.0%
San Francisco	Marin	73.7%	93.5%	3.7%	1.8%	1.0%	100.0%
San Mateo	San Francisco	64.5%	83.4%	14.1%	1.7%	0.8%	100.0%
San Mateo	San Mateo	64.0%	85.7%	0.9%	1.8%	11.6%	100.0%
San Mateo	Santa Clara	78.2%	95.1%	1.5%	1.6%	1.8%	100.0%
San Mateo	Alameda	77.0%	95.7%	4.1%	0.2%	0.1%	100.0%
San Mateo	Contra Costa	76.5%	98.4%	1.6%	0.0%	0.0%	100.0%
San Mateo	Solano	75.5%	100.0%	0.0%	0.0%	0.0%	100.0%
San Mateo	Napa	80.1%	100.0%	0.0%	0.0%	0.0%	100.0%
San Mateo	Sonoma	79.1%	100.0%	0.0%	0.0%	0.0%	100.0%
San Mateo	Marin	75.0%	99.3%	0.2%	0.5%	0.0%	100.0%
Santa Clara	San Francisco	63.6%	81.9%	15.8%	0.5%	1.8%	100.0%
Santa Clara	San Mateo	77.4%	95.0%	3.3%	0.9%	0.8%	100.0%
Santa Clara	Santa Clara	64.2%	87.9%	2.9%	2.2%	6.9%	100.0%
Santa Clara	Alameda	77.0%	97.8%	1.1%	0.5%	0.5%	100.0%
Santa Clara	Contra Costa	71.7%	100.0%	0.0%	0.0%	0.0%	100.0%
Santa Clara	Solano	71.8%	100.0%	0.0%	0.0%	0.0%	100.0%
Santa Clara	Napa	69.9%	100.0%	0.0%	0.0%	0.0%	100.0%
Santa Clara	Sonoma	71.4%	100.0%	0.0%	0.0%	0.0%	100.0%
Santa Clara	Marin	73.4%	100.0%	0.0%	0.0%	0.0%	100.0%
Alameda	San Francisco	32.9%	44.3%	55.6%	0.1%	0.0%	100.0%
Alameda	San Mateo	76.4%	93.8%	5.7%	0.3%	0.2%	100.0%
Alameda	Santa Clara	82.7%	97.6%	1.8%	0.4%	0.2%	100.0%
Alameda	Alameda	59.7%	81.1%	4.1%	2.1%	12.8%	100.0%
Alameda	Contra Costa	75.6%	95.0%	3.1%	0.9%	0.9%	100.0%
Alameda	Solano	71.3%	98.6%	1.4%	0.0%	0.0%	100.0%
Alameda	Napa	77.7%	99.9%	0.0%	0.1%	0.0%	100.0%
Alameda	Sonoma	81.2%	100.0%	0.0%	0.0%	0.0%	100.0%
Alameda	Marin	80.4%	99.4%	0.6%	0.0%	0.0%	100.0%
Contra Costa	San Francisco	36.6%	49.7%	50.2%	0.0%	0.1%	100.0%
Contra Costa	San Mateo	76.8%	93.3%	6.7%	0.0%	0.0%	100.0%
Contra Costa	Santa Clara	79.8%	97.3%	2.4%	0.2%	0.0%	100.0%
Contra Costa	Alameda	77.6%	92.2%	6.9%	0.5%	0.4%	100.0%
Contra Costa	Contra Costa	63.9%	89.7%	1.0%	1.0%	8.3%	100.0%
Contra Costa	Solano	74.7%	98.8%	0.5%	0.7%	0.0%	100.0%
Contra Costa	Napa	73.7%	99.8%	0.0%	0.2%	0.0%	100.0%
Contra Costa	Sonoma	77.1%	100.0%	0.0%	0.0%	0.0%	100.0%
Contra Costa	Marin	78.6%	98.7%	1.3%	0.0%	0.0%	100.0%
Solano	San Francisco	56.8%	85.6%	14.4%	0.0%	0.0%	100.0%
Solano	San Mateo	70.5%	95.1%	4.9%	0.0%	0.0%	100.0%
Solano	Santa Clara	76.1%	100.0%	0.0%	0.0%	0.0%	100.0%
Solano	Alameda	78.4%	94.9%	5.1%	0.0%	0.0%	100.0%
Solano	Contra Costa	82.5%	99.3%	0.4%	0.3%	0.0%	100.0%
Solano	Solano	61.2%	88.4%	1.3%	1.4%	8.9%	100.0%

Table E.12
Share of County-to-County Total Trips by Mode: Year 2006 Base

County of Origin	County of Attr.	Driver	In-Vehicle	Transit	Bicycle	Walk	Total
Solano	Napa	83.3%	98.1%	0.6%	0.7%	0.5%	100.0%
Solano	Sonoma	78.2%	99.3%	0.0%	0.7%	0.0%	100.0%
Solano	Marin	82.9%	99.9%	0.0%	0.1%	0.0%	100.0%
Napa	San Francisco	64.2%	77.1%	22.8%	0.0%	0.1%	100.0%
Napa	San Mateo	85.1%	99.9%	0.0%	0.0%	0.0%	100.0%
Napa	Santa Clara	79.8%	100.0%	0.0%	0.0%	0.0%	100.0%
Napa	Alameda	83.0%	97.6%	2.4%	0.0%	0.0%	100.0%
Napa	Contra Costa	84.9%	99.6%	0.0%	0.3%	0.0%	100.0%
Napa	Solano	83.2%	98.4%	0.4%	0.7%	0.6%	100.0%
Napa	Napa	63.0%	86.9%	0.8%	1.8%	10.6%	100.0%
Napa	Sonoma	78.3%	99.2%	0.0%	0.8%	0.0%	100.0%
Napa	Marin	83.5%	100.0%	0.0%	0.0%	0.0%	100.0%
Sonoma	San Francisco	64.9%	79.3%	20.2%	0.0%	0.5%	100.0%
Sonoma	San Mateo	85.3%	99.4%	0.6%	0.0%	0.1%	100.0%
Sonoma	Santa Clara	77.1%	96.7%	0.0%	0.0%	3.3%	100.0%
Sonoma	Alameda	81.8%	99.6%	0.4%	0.0%	0.0%	100.0%
Sonoma	Contra Costa	85.5%	100.0%	0.0%	0.0%	0.0%	100.0%
Sonoma	Solano	85.7%	99.8%	0.0%	0.1%	0.1%	100.0%
Sonoma	Napa	77.5%	98.7%	0.0%	1.3%	0.0%	100.0%
Sonoma	Sonoma	65.6%	89.9%	1.3%	2.3%	6.4%	100.0%
Sonoma	Marin	86.2%	99.1%	0.5%	0.3%	0.2%	100.0%
Marin	San Francisco	69.7%	82.6%	15.3%	1.9%	0.1%	100.0%
Marin	San Mateo	84.6%	97.7%	1.9%	0.3%	0.0%	100.0%
Marin	Santa Clara	88.0%	99.8%	0.2%	0.0%	0.0%	100.0%
Marin	Alameda	87.5%	97.2%	2.8%	0.0%	0.0%	100.0%
Marin	Contra Costa	85.9%	98.8%	1.2%	0.0%	0.0%	100.0%
Marin	Solano	83.2%	99.9%	0.0%	0.1%	0.0%	100.0%
Marin	Napa	83.9%	99.8%	0.0%	0.1%	0.0%	100.0%
Marin	Sonoma	84.4%	98.8%	0.7%	0.5%	0.0%	100.0%
Marin	Marin	67.5%	88.2%	1.0%	2.4%	8.4%	100.0%
Bay Area	**Bay Area**	**61.6%**	**82.8%**	**5.3%**	**1.7%**	**10.2%**	**100.0%**
San Francisco	Bay Area	40.3%	51.6%	19.5%	1.4%	27.6%	100.0%
San Mateo	Bay Area	65.7%	86.6%	2.9%	1.7%	8.8%	100.0%
Santa Clara	Bay Area	65.2%	88.6%	2.9%	2.1%	6.4%	100.0%
Alameda	Bay Area	60.9%	81.4%	6.1%	1.8%	10.7%	100.0%
Contra Costa	Bay Area	64.9%	89.0%	3.2%	0.9%	6.9%	100.0%
Solano	Bay Area	63.5%	89.5%	1.5%	1.2%	7.8%	100.0%
Napa	Bay Area	65.5%	88.4%	0.9%	1.6%	9.1%	100.0%
Sonoma	Bay Area	66.6%	90.3%	1.5%	2.2%	6.0%	100.0%
Marin	Bay Area	68.8%	88.6%	1.9%	2.2%	7.3%	100.0%
Bay Area	San Francisco	39.2%	50.7%	23.7%	1.4%	24.2%	100.0%
Bay Area	San Mateo	66.8%	87.6%	1.6%	1.6%	9.2%	100.0%
Bay Area	Santa Clara	65.6%	88.6%	2.9%	2.1%	6.4%	100.0%
Bay Area	Alameda	62.1%	82.8%	4.4%	1.8%	10.9%	100.0%
Bay Area	Contra Costa	65.5%	90.6%	1.2%	0.9%	7.2%	100.0%
Bay Area	Solano	62.9%	89.6%	1.2%	1.3%	7.9%	100.0%
Bay Area	Napa	65.5%	88.8%	0.7%	1.6%	8.9%	100.0%
Bay Area	Sonoma	66.4%	90.5%	1.3%	2.2%	6.1%	100.0%
Bay Area	Marin	69.5%	89.8%	1.1%	2.1%	7.0%	100.0%
Bay Area	**Bay Area**	**61.6%**	**82.8%**	**5.3%**	**1.7%**	**10.2%**	**100.0%**

Table E.13
County-to-County Home-Based Work Trips by Mode: Year 2035 Baseline

County of Residence	County of Work	Drive Alone	Shared Ride 2	Shared Ride 3+	Transit	Bicycle	Walk	Total
San Francisco	San Francisco	211,824	53,582	16,028	230,387	20,385	84,377	616,582
San Francisco	San Mateo	67,038	9,795	2,498	5,808	905	744	86,788
San Francisco	Santa Clara	13,606	2,870	1,042	1,385	8	3	18,914
San Francisco	Alameda	18,097	3,276	1,301	7,443	0	0	30,116
San Francisco	Contra Costa	5,281	1,099	788	852	0	0	8,020
San Francisco	Solano	285	202	150	2	0	0	639
San Francisco	Napa	260	94	64	0	0	0	418
San Francisco	Sonoma	1,684	591	912	5	0	15	3,208
San Francisco	Marin	13,712	3,632	1,298	859	668	196	20,364
San Mateo	San Francisco	77,480	17,004	7,092	56,359	406	607	158,950
San Mateo	San Mateo	341,678	42,580	12,101	10,204	4,705	16,557	427,825
San Mateo	Santa Clara	74,282	8,356	1,653	2,821	1,527	296	88,935
San Mateo	Alameda	21,020	2,857	1,264	2,448	93	50	27,732
San Mateo	Contra Costa	2,569	328	140	164	0	0	3,202
San Mateo	Solano	236	155	50	0	0	0	441
San Mateo	Napa	156	19	27	0	0	0	203
San Mateo	Sonoma	3,823	1,737	2,102	0	0	2	7,664
San Mateo	Marin	2,178	972	210	22	3	0	3,386
Santa Clara	San Francisco	20,897	5,531	2,857	23,789	314	1,379	54,768
Santa Clara	San Mateo	104,453	17,794	2,391	9,302	1,649	1,003	136,592
Santa Clara	Santa Clara	1,285,782	192,670	45,321	84,569	31,372	41,262	1,680,976
Santa Clara	Alameda	104,142	15,731	7,531	2,787	1,052	1,083	132,326
Santa Clara	Contra Costa	14,326	4,867	3,898	18	4	2	23,114
Santa Clara	Solano	7,209	1,223	2,400	0	0	2	10,833
Santa Clara	Napa	842	1,473	642	0	0	1	2,958
Santa Clara	Sonoma	6,669	4,106	4,348	0	0	33	15,156
Santa Clara	Marin	2,541	1,396	563	1	0	2	4,502
Alameda	San Francisco	47,633	16,962	25,071	224,932	421	16	315,034
Alameda	San Mateo	46,853	13,420	4,609	7,773	503	205	73,363
Alameda	Santa Clara	108,932	21,841	5,784	4,359	218	246	141,381
Alameda	Alameda	788,000	122,379	36,979	79,137	26,394	56,773	1,109,662
Alameda	Contra Costa	78,816	9,298	3,616	5,277	689	579	98,275
Alameda	Solano	3,104	1,191	2,216	80	2	0	6,593
Alameda	Napa	996	202	139	0	2	0	1,339
Alameda	Sonoma	8,363	1,383	5,749	0	1	3	15,500
Alameda	Marin	7,599	2,144	918	86	1	1	10,749
Contra Costa	San Francisco	28,899	11,374	14,322	98,572	0	157	153,324
Contra Costa	San Mateo	11,257	1,790	1,822	3,116	1	7	17,993
Contra Costa	Santa Clara	10,603	3,639	455	700	101	0	15,499
Contra Costa	Alameda	165,471	25,263	7,145	21,922	970	528	221,300
Contra Costa	Contra Costa	561,373	65,316	18,640	13,600	5,962	19,164	684,054
Contra Costa	Solano	14,033	1,787	830	186	63	1	16,900
Contra Costa	Napa	3,127	1,290	534	0	9	1	4,961
Contra Costa	Sonoma	5,693	2,286	1,722	0	0	5	9,705
Contra Costa	Marin	12,995	3,204	2,126	169	1	0	18,495
Solano	San Francisco	6,614	2,839	7,321	5,992	0	3	22,769
Solano	San Mateo	3,699	502	2,180	738	0	1	7,120
Solano	Santa Clara	1,874	196	97	0	0	0	2,168
Solano	Alameda	20,938	4,331	3,555	2,485	16	9	31,334
Solano	Contra Costa	48,741	7,814	6,252	231	120	16	63,174
Solano	Solano	241,357	30,176	7,614	4,823	2,251	9,361	295,582

Table E.13
County-to-County Home-Based Work Trips by Mode: Year 2035 Baseline

County of Residence	County of Work	Drive Alone	Shared Ride 2	Shared Ride 3+	Transit	Bicycle	Walk	Total
Solano	Napa	32,002	4,450	3,262	157	447	184	40,502
Solano	Sonoma	13,459	3,742	3,891	0	118	16	21,225
Solano	Marin	8,237	1,859	1,001	4	16	1	11,118
Napa	San Francisco	1,261	265	178	1,048	0	3	2,756
Napa	San Mateo	852	53	110	0	0	0	1,016
Napa	Santa Clara	491	59	175	0	0	0	725
Napa	Alameda	2,041	334	187	92	0	0	2,655
Napa	Contra Costa	4,500	335	251	3	2	0	5,092
Napa	Solano	10,811	1,207	182	55	32	29	12,314
Napa	Napa	70,716	9,324	4,282	1,333	1,032	3,856	90,543
Napa	Sonoma	9,672	595	1,537	0	26	4	11,834
Napa	Marin	1,384	344	111	0	0	0	1,838
Sonoma	San Francisco	1,935	356	212	795	0	8	3,306
Sonoma	San Mateo	734	34	28	11	0	0	808
Sonoma	Santa Clara	112	16	32	0	0	31	190
Sonoma	Alameda	509	188	44	7	0	0	748
Sonoma	Contra Costa	725	18	45	0	0	0	788
Sonoma	Solano	548	21	20	0	0	0	591
Sonoma	Napa	986	103	21	0	1	1	1,112
Sonoma	Sonoma	330,712	38,479	8,238	4,100	5,269	18,868	405,666
Sonoma	Marin	21,332	4,413	999	161	41	44	26,991
Marin	San Francisco	21,394	5,961	1,178	6,865	606	76	36,081
Marin	San Mateo	4,664	950	79	151	21	9	5,873
Marin	Santa Clara	535	55	41	3	0	0	634
Marin	Alameda	3,564	336	60	145	0	0	4,106
Marin	Contra Costa	2,623	249	105	61	0	0	3,038
Marin	Solano	450	15	11	0	0	0	476
Marin	Napa	243	25	15	0	0	0	282
Marin	Sonoma	21,405	2,850	808	126	48	14	25,251
Marin	Marin	127,240	15,242	2,707	2,526	2,333	8,036	158,083
Bay Area	**Bay Area**	**5,324,177**	**836,445**	**308,177**	**931,046**	**110,808**	**265,870**	**7,776,528**
San Francisco	Bay Area	331,787	75,141	24,081	246,741	21,966	85,335	785,049
San Mateo	Bay Area	523,422	74,008	24,639	72,018	6,734	17,512	718,338
Santa Clara	Bay Area	1,546,861	244,791	69,951	120,466	34,391	44,767	2,061,225
Alameda	Bay Area	1,090,296	188,820	85,081	321,644	28,231	57,823	1,771,896
Contra Costa	Bay Area	813,451	115,949	47,596	138,265	7,107	19,863	1,142,231
Solano	Bay Area	376,921	55,909	35,173	14,430	2,968	9,591	494,992
Napa	Bay Area	101,728	12,516	7,013	2,531	1,092	3,892	128,773
Sonoma	Bay Area	357,593	43,628	9,639	5,074	5,311	18,952	440,200
Marin	Bay Area	182,118	25,683	5,004	9,877	3,008	8,135	233,824
Bay Area	San Francisco	417,937	113,874	74,259	648,739	22,132	86,626	1,363,570
Bay Area	San Mateo	581,228	86,918	25,818	37,103	7,784	18,526	757,378
Bay Area	Santa Clara	1,496,217	229,702	54,600	93,837	33,226	41,838	1,949,422
Bay Area	Alameda	1,123,782	174,695	58,066	116,466	28,525	58,443	1,559,979
Bay Area	Contra Costa	718,954	89,324	33,735	20,206	6,777	19,761	888,757
Bay Area	Solano	278,033	35,977	13,473	5,146	2,348	9,393	344,369
Bay Area	Napa	109,328	16,980	8,986	1,490	1,491	4,043	142,318
Bay Area	Sonoma	401,480	55,769	29,307	4,231	5,462	18,960	515,209
Bay Area	Marin	197,218	33,206	9,933	3,828	3,063	8,280	255,526
Bay Area	**Bay Area**	**5,324,177**	**836,445**	**308,177**	**931,046**	**110,808**	**265,870**	**7,776,528**

Table E.14
Share of County-to-County Home-Based Work Trips by Mode: Year 2035 Baseline

County of Residence	County of Work	Drive Alone	Shared Ride 2	Shared Ride 3+	Transit	Bicycle	Walk	Total
San Francisco	San Francisco	34.4%	8.7%	2.6%	37.4%	3.3%	13.7%	100.0%
San Francisco	San Mateo	77.2%	11.3%	2.9%	6.7%	1.0%	0.9%	100.0%
San Francisco	Santa Clara	71.9%	15.2%	5.5%	7.3%	0.0%	0.0%	100.0%
San Francisco	Alameda	60.1%	10.9%	4.3%	24.7%	0.0%	0.0%	100.0%
San Francisco	Contra Costa	65.8%	13.7%	9.8%	10.6%	0.0%	0.0%	100.0%
San Francisco	Solano	44.6%	31.6%	23.5%	0.3%	0.0%	0.0%	100.0%
San Francisco	Napa	62.2%	22.5%	15.3%	0.0%	0.0%	0.0%	100.0%
San Francisco	Sonoma	52.5%	18.4%	28.4%	0.2%	0.0%	0.5%	100.0%
San Francisco	Marin	67.3%	17.8%	6.4%	4.2%	3.3%	1.0%	100.0%
San Mateo	San Francisco	48.7%	10.7%	4.5%	35.5%	0.3%	0.4%	100.0%
San Mateo	San Mateo	79.9%	10.0%	2.8%	2.4%	1.1%	3.9%	100.0%
San Mateo	Santa Clara	83.5%	9.4%	1.9%	3.2%	1.7%	0.3%	100.0%
San Mateo	Alameda	75.8%	10.3%	4.6%	8.8%	0.3%	0.2%	100.0%
San Mateo	Contra Costa	80.2%	10.2%	4.4%	5.1%	0.0%	0.0%	100.0%
San Mateo	Solano	53.5%	35.1%	11.3%	0.0%	0.0%	0.0%	100.0%
San Mateo	Napa	76.8%	9.4%	13.3%	0.0%	0.0%	0.0%	100.0%
San Mateo	Sonoma	49.9%	22.7%	27.4%	0.0%	0.0%	0.0%	100.0%
San Mateo	Marin	64.3%	28.7%	6.2%	0.6%	0.1%	0.0%	100.0%
Santa Clara	San Francisco	38.2%	10.1%	5.2%	43.4%	0.6%	2.5%	100.0%
Santa Clara	San Mateo	76.5%	13.0%	1.8%	6.8%	1.2%	0.7%	100.0%
Santa Clara	Santa Clara	76.5%	11.5%	2.7%	5.0%	1.9%	2.5%	100.0%
Santa Clara	Alameda	78.7%	11.9%	5.7%	2.1%	0.8%	0.8%	100.0%
Santa Clara	Contra Costa	62.0%	21.1%	16.9%	0.1%	0.0%	0.0%	100.0%
Santa Clara	Solano	66.5%	11.3%	22.2%	0.0%	0.0%	0.0%	100.0%
Santa Clara	Napa	28.5%	49.8%	21.7%	0.0%	0.0%	0.0%	100.0%
Santa Clara	Sonoma	44.0%	27.1%	28.7%	0.0%	0.0%	0.2%	100.0%
Santa Clara	Marin	56.4%	31.0%	12.5%	0.0%	0.0%	0.0%	100.0%
Alameda	San Francisco	15.1%	5.4%	8.0%	71.4%	0.1%	0.0%	100.0%
Alameda	San Mateo	63.9%	18.3%	6.3%	10.6%	0.7%	0.3%	100.0%
Alameda	Santa Clara	77.0%	15.4%	4.1%	3.1%	0.2%	0.2%	100.0%
Alameda	Alameda	71.0%	11.0%	3.3%	7.1%	2.4%	5.1%	100.0%
Alameda	Contra Costa	80.2%	9.5%	3.7%	5.4%	0.7%	0.6%	100.0%
Alameda	Solano	47.1%	18.1%	33.6%	1.2%	0.0%	0.0%	100.0%
Alameda	Napa	74.4%	15.1%	10.4%	0.0%	0.1%	0.0%	100.0%
Alameda	Sonoma	54.0%	8.9%	37.1%	0.0%	0.0%	0.0%	100.0%
Alameda	Marin	70.7%	19.9%	8.5%	0.8%	0.0%	0.0%	100.0%
Contra Costa	San Francisco	18.8%	7.4%	9.3%	64.3%	0.0%	0.1%	100.0%
Contra Costa	San Mateo	62.6%	9.9%	10.1%	17.3%	0.0%	0.0%	100.0%
Contra Costa	Santa Clara	68.4%	23.5%	2.9%	4.5%	0.7%	0.0%	100.0%
Contra Costa	Alameda	74.8%	11.4%	3.2%	9.9%	0.4%	0.2%	100.0%
Contra Costa	Contra Costa	82.1%	9.5%	2.7%	2.0%	0.9%	2.8%	100.0%
Contra Costa	Solano	83.0%	10.6%	4.9%	1.1%	0.4%	0.0%	100.0%
Contra Costa	Napa	63.0%	26.0%	10.8%	0.0%	0.2%	0.0%	100.0%
Contra Costa	Sonoma	58.7%	23.6%	17.7%	0.0%	0.0%	0.1%	100.0%
Contra Costa	Marin	70.3%	17.3%	11.5%	0.9%	0.0%	0.0%	100.0%
Solano	San Francisco	29.0%	12.5%	32.2%	26.3%	0.0%	0.0%	100.0%
Solano	San Mateo	52.0%	7.1%	30.6%	10.4%	0.0%	0.0%	100.0%
Solano	Santa Clara	86.4%	9.0%	4.5%	0.0%	0.0%	0.0%	100.0%
Solano	Alameda	66.8%	13.8%	11.3%	7.9%	0.1%	0.0%	100.0%
Solano	Contra Costa	77.2%	12.4%	9.9%	0.4%	0.2%	0.0%	100.0%
Solano	Solano	81.7%	10.2%	2.6%	1.6%	0.8%	3.2%	100.0%

Table E.14
Share of County-to-County Home-Based Work Trips by Mode: Year 2035 Baseline

County of Residence	County of Work	Drive Alone	Shared Ride 2	Shared Ride 3+	Transit	Bicycle	Walk	Total
Solano	Napa	79.0%	11.0%	8.1%	0.4%	1.1%	0.5%	100.0%
Solano	Sonoma	63.4%	17.6%	18.3%	0.0%	0.6%	0.1%	100.0%
Solano	Marin	74.1%	16.7%	9.0%	0.0%	0.1%	0.0%	100.0%
Napa	San Francisco	45.8%	9.6%	6.5%	38.0%	0.0%	0.1%	100.0%
Napa	San Mateo	83.9%	5.2%	10.8%	0.0%	0.0%	0.0%	100.0%
Napa	Santa Clara	67.7%	8.1%	24.1%	0.0%	0.0%	0.0%	100.0%
Napa	Alameda	76.9%	12.6%	7.0%	3.5%	0.0%	0.0%	100.0%
Napa	Contra Costa	88.4%	6.6%	4.9%	0.1%	0.0%	0.0%	100.0%
Napa	Solano	87.8%	9.8%	1.5%	0.4%	0.3%	0.2%	100.0%
Napa	Napa	78.1%	10.3%	4.7%	1.5%	1.1%	4.3%	100.0%
Napa	Sonoma	81.7%	5.0%	13.0%	0.0%	0.2%	0.0%	100.0%
Napa	Marin	75.3%	18.7%	6.0%	0.0%	0.0%	0.0%	100.0%
Sonoma	San Francisco	58.5%	10.8%	6.4%	24.0%	0.0%	0.2%	100.0%
Sonoma	San Mateo	90.8%	4.2%	3.5%	1.4%	0.0%	0.0%	100.0%
Sonoma	Santa Clara	58.9%	8.4%	16.8%	0.0%	0.0%	16.3%	100.0%
Sonoma	Alameda	68.0%	25.1%	5.9%	0.9%	0.0%	0.0%	100.0%
Sonoma	Contra Costa	92.0%	2.3%	5.7%	0.0%	0.0%	0.0%	100.0%
Sonoma	Solano	92.7%	3.6%	3.4%	0.0%	0.0%	0.0%	100.0%
Sonoma	Napa	88.7%	9.3%	1.9%	0.0%	0.1%	0.1%	100.0%
Sonoma	Sonoma	81.5%	9.5%	2.0%	1.0%	1.3%	4.7%	100.0%
Sonoma	Marin	79.0%	16.3%	3.7%	0.6%	0.2%	0.2%	100.0%
Marin	San Francisco	59.3%	16.5%	3.3%	19.0%	1.7%	0.2%	100.0%
Marin	San Mateo	79.4%	16.2%	1.3%	2.6%	0.4%	0.2%	100.0%
Marin	Santa Clara	84.4%	8.7%	6.5%	0.5%	0.0%	0.0%	100.0%
Marin	Alameda	86.8%	8.2%	1.5%	3.5%	0.0%	0.0%	100.0%
Marin	Contra Costa	86.3%	8.2%	3.5%	2.0%	0.0%	0.0%	100.0%
Marin	Solano	94.5%	3.2%	2.3%	0.0%	0.0%	0.0%	100.0%
Marin	Napa	86.2%	8.9%	5.3%	0.0%	0.0%	0.0%	100.0%
Marin	Sonoma	84.8%	11.3%	3.2%	0.5%	0.2%	0.1%	100.0%
Marin	Marin	80.5%	9.6%	1.7%	1.6%	1.5%	5.1%	100.0%
Bay Area	**Bay Area**	**68.5%**	**10.8%**	**4.0%**	**12.0%**	**1.4%**	**3.4%**	**100.0%**
San Francisco	Bay Area	42.3%	9.6%	3.1%	31.4%	2.8%	10.9%	100.0%
San Mateo	Bay Area	72.9%	10.3%	3.4%	10.0%	0.9%	2.4%	100.0%
Santa Clara	Bay Area	75.0%	11.9%	3.4%	5.8%	1.7%	2.2%	100.0%
Alameda	Bay Area	61.5%	10.7%	4.8%	18.2%	1.6%	3.3%	100.0%
Contra Costa	Bay Area	71.2%	10.2%	4.2%	12.1%	0.6%	1.7%	100.0%
Solano	Bay Area	76.1%	11.3%	7.1%	2.9%	0.6%	1.9%	100.0%
Napa	Bay Area	79.0%	9.7%	5.4%	2.0%	0.8%	3.0%	100.0%
Sonoma	Bay Area	81.2%	9.9%	2.2%	1.2%	1.2%	4.3%	100.0%
Marin	Bay Area	77.9%	11.0%	2.1%	4.2%	1.3%	3.5%	100.0%
Bay Area	San Francisco	30.7%	8.4%	5.4%	47.6%	1.6%	6.4%	100.0%
Bay Area	San Mateo	76.7%	11.5%	3.4%	4.9%	1.0%	2.4%	100.0%
Bay Area	Santa Clara	76.8%	11.8%	2.8%	4.8%	1.7%	2.1%	100.0%
Bay Area	Alameda	72.0%	11.2%	3.7%	7.5%	1.8%	3.7%	100.0%
Bay Area	Contra Costa	80.9%	10.1%	3.8%	2.3%	0.8%	2.2%	100.0%
Bay Area	Solano	80.7%	10.4%	3.9%	1.5%	0.7%	2.7%	100.0%
Bay Area	Napa	76.8%	11.9%	6.3%	1.0%	1.0%	2.8%	100.0%
Bay Area	Sonoma	77.9%	10.8%	5.7%	0.8%	1.1%	3.7%	100.0%
Bay Area	Marin	77.2%	13.0%	3.9%	1.5%	1.2%	3.2%	100.0%
Bay Area	**Bay Area**	**68.5%**	**10.8%**	**4.0%**	**12.0%**	**1.4%**	**3.4%**	**100.0%**

Table E.15
County-to-County Total Trips by Mode: Year 2035 Baseline

County of Origin	County of Attr.	Driver	In-Vehicle	Transit	Bicycle	Walk	Total
San Francisco	San Francisco	891,869	1,162,178	634,852	42,324	930,581	2,769,935
San Francisco	San Mateo	211,456	265,147	12,156	2,961	4,516	284,781
San Francisco	Santa Clara	22,651	27,080	1,541	9	3	28,633
San Francisco	Alameda	56,793	72,725	14,914	0	0	87,639
San Francisco	Contra Costa	18,012	23,672	1,475	0	0	25,147
San Francisco	Solano	1,820	2,505	9	0	0	2,514
San Francisco	Napa	762	991	0	0	0	991
San Francisco	Sonoma	3,574	4,954	6	0	15	4,975
San Francisco	Marin	26,188	32,466	1,143	806	196	34,612
San Mateo	San Francisco	277,328	354,348	67,857	6,669	3,200	432,074
San Mateo	San Mateo	1,526,717	2,003,070	22,751	35,138	241,856	2,302,816
San Mateo	Santa Clara	189,856	231,006	3,725	4,065	4,356	243,152
San Mateo	Alameda	46,757	57,119	2,508	159	50	59,836
San Mateo	Contra Costa	8,347	10,440	165	0	0	10,605
San Mateo	Solano	1,199	1,544	0	0	0	1,544
San Mateo	Napa	521	629	0	0	0	629
San Mateo	Sonoma	6,854	9,659	0	0	2	9,661
San Mateo	Marin	5,654	7,215	23	24	0	7,262
Santa Clara	San Francisco	48,889	63,580	27,195	319	1,379	92,472
Santa Clara	San Mateo	243,862	299,918	11,610	3,066	2,270	316,864
Santa Clara	Santa Clara	4,671,839	6,273,268	262,691	146,139	466,382	7,148,480
Santa Clara	Alameda	199,265	248,372	3,433	1,800	1,231	254,835
Santa Clara	Contra Costa	46,609	66,226	21	4	2	66,253
Santa Clara	Solano	13,792	18,633	0	0	2	18,635
Santa Clara	Napa	4,410	6,814	0	0	1	6,815
Santa Clara	Sonoma	34,494	53,155	0	0	33	53,188
Santa Clara	Marin	5,675	7,494	1	0	2	7,497
Alameda	San Francisco	88,743	123,147	240,183	421	16	363,766
Alameda	San Mateo	84,989	105,777	8,099	605	205	114,686
Alameda	Santa Clara	186,845	223,541	5,065	916	380	229,902
Alameda	Alameda	2,973,939	3,976,432	214,986	96,081	609,324	4,896,824
Alameda	Contra Costa	211,863	263,442	9,850	2,541	2,658	278,491
Alameda	Solano	11,966	16,875	148	5	0	17,028
Alameda	Napa	2,927	3,666	1	3	0	3,670
Alameda	Sonoma	14,871	21,162	0	1	3	21,165
Alameda	Marin	11,091	13,463	92	1	1	13,557
Contra Costa	San Francisco	51,282	71,334	101,665	0	157	173,156
Contra Costa	San Mateo	17,936	21,827	3,183	1	7	25,018
Contra Costa	Santa Clara	21,317	26,715	704	101	0	27,521
Contra Costa	Alameda	274,899	324,266	26,206	1,669	1,486	353,627
Contra Costa	Contra Costa	2,241,086	3,028,557	31,201	27,368	253,480	3,340,606
Contra Costa	Solano	45,451	58,301	278	142	9	58,730
Contra Costa	Napa	8,455	11,045	1	20	1	11,066
Contra Costa	Sonoma	12,307	16,725	0	0	5	16,730
Contra Costa	Marin	17,281	21,104	175	1	0	21,280
Solano	San Francisco	12,853	20,637	6,169	0	3	26,808
Solano	San Mateo	6,117	8,433	739	0	1	9,173
Solano	Santa Clara	5,054	7,091	0	0	0	7,092
Solano	Alameda	29,503	36,290	2,606	17	9	38,923
Solano	Contra Costa	76,476	94,269	303	237	17	94,826
Solano	Solano	922,528	1,291,881	16,709	15,225	122,376	1,446,190

Table E.15
County-to-County Total Trips by Mode: Year 2035 Baseline

County of Origin	County of Attr.	Driver	In-Vehicle	Transit	Bicycle	Walk	Total
Solano	Napa	39,080	45,254	208	490	243	46,196
Solano	Sonoma	19,637	25,701	0	119	16	25,837
Solano	Marin	11,304	13,630	4	18	1	13,652
Napa	San Francisco	2,104	2,530	1,052	0	3	3,585
Napa	San Mateo	1,502	1,747	0	0	0	1,747
Napa	Santa Clara	1,690	2,143	0	0	0	2,143
Napa	Alameda	3,675	4,378	95	2	0	4,476
Napa	Contra Costa	8,571	10,178	4	30	0	10,212
Napa	Solano	18,149	21,549	74	142	122	21,887
Napa	Napa	275,906	372,900	3,460	6,564	40,341	423,265
Napa	Sonoma	20,517	25,119	0	175	4	25,298
Napa	Marin	2,265	2,706	0	2	0	2,708
Sonoma	San Francisco	5,370	6,738	802	0	8	7,548
Sonoma	San Mateo	2,676	3,250	11	0	0	3,261
Sonoma	Santa Clara	3,728	4,782	0	0	31	4,813
Sonoma	Alameda	3,018	3,816	7	0	0	3,824
Sonoma	Contra Costa	2,740	3,378	0	0	0	3,378
Sonoma	Solano	2,121	2,640	0	2	0	2,642
Sonoma	Napa	10,361	13,593	0	147	1	13,742
Sonoma	Sonoma	1,131,988	1,518,478	18,125	34,258	104,252	1,675,113
Sonoma	Marin	29,705	34,736	162	98	44	35,040
Marin	San Francisco	47,945	57,660	7,675	1,308	76	66,719
Marin	San Mateo	8,933	10,364	154	46	9	10,572
Marin	Santa Clara	1,968	2,231	3	0	0	2,233
Marin	Alameda	5,562	6,273	150	0	0	6,423
Marin	Contra Costa	5,376	6,352	66	0	0	6,418
Marin	Solano	2,007	2,436	0	2	0	2,437
Marin	Napa	900	1,082	0	1	0	1,083
Marin	Sonoma	34,195	40,101	130	118	14	40,363
Marin	Marin	544,156	696,544	6,389	15,662	61,400	779,995
Bay Area	**Bay Area**	**18,142,121**	**24,032,477**	**1,775,010**	**448,022**	**2,852,780**	**29,108,290**
San Francisco	Bay Area	1,233,125	1,591,718	666,096	46,100	935,311	3,239,227
San Mateo	Bay Area	2,063,233	2,675,030	97,029	46,055	249,464	3,067,579
Santa Clara	Bay Area	5,268,835	7,037,460	304,951	151,328	471,302	7,965,039
Alameda	Bay Area	3,587,234	4,747,505	478,424	100,574	612,587	5,939,089
Contra Costa	Bay Area	2,690,014	3,579,874	163,413	29,302	255,145	4,027,734
Solano	Bay Area	1,122,552	1,543,186	26,738	16,106	122,666	1,708,697
Napa	Bay Area	334,379	443,250	4,685	6,915	40,470	495,321
Sonoma	Bay Area	1,191,707	1,591,411	19,107	34,505	104,336	1,749,361
Marin	Bay Area	651,042	823,043	14,567	17,137	61,499	916,243
Bay Area	San Francisco	1,426,383	1,862,152	1,087,450	51,041	935,423	3,936,063
Bay Area	San Mateo	2,104,188	2,719,533	58,703	41,817	248,864	3,068,918
Bay Area	Santa Clara	5,104,948	6,797,857	273,729	151,230	471,152	7,693,969
Bay Area	Alameda	3,593,411	4,729,671	264,905	99,728	612,100	5,706,407
Bay Area	Contra Costa	2,619,080	3,506,514	43,085	30,180	256,157	3,835,936
Bay Area	Solano	1,019,033	1,416,364	17,218	15,518	122,509	1,571,607
Bay Area	Napa	343,322	455,974	3,670	7,225	40,587	507,457
Bay Area	Sonoma	1,278,437	1,715,054	18,261	34,671	104,344	1,872,330
Bay Area	Marin	653,319	829,358	7,989	16,612	61,644	915,603
Bay Area	**Bay Area**	**18,142,121**	**24,032,477**	**1,775,010**	**448,022**	**2,852,780**	**29,108,290**

Table E.16
Share of County-to-County Total Trips by Mode: Year 2035 Baseline

County of Origin	County of Attr.	Driver	In-Vehicle	Transit	Bicycle	Walk	Total
San Francisco	San Francisco	32.2%	42.0%	22.9%	1.5%	33.6%	100.0%
San Francisco	San Mateo	74.3%	93.1%	4.3%	1.0%	1.6%	100.0%
San Francisco	Santa Clara	79.1%	94.6%	5.4%	0.0%	0.0%	100.0%
San Francisco	Alameda	64.8%	83.0%	17.0%	0.0%	0.0%	100.0%
San Francisco	Contra Costa	71.6%	94.1%	5.9%	0.0%	0.0%	100.0%
San Francisco	Solano	72.4%	99.6%	0.4%	0.0%	0.0%	100.0%
San Francisco	Napa	76.9%	100.0%	0.0%	0.0%	0.0%	100.0%
San Francisco	Sonoma	71.8%	99.6%	0.1%	0.0%	0.3%	100.0%
San Francisco	Marin	75.7%	93.8%	3.3%	2.3%	0.6%	100.0%
San Mateo	San Francisco	64.2%	82.0%	15.7%	1.5%	0.7%	100.0%
San Mateo	San Mateo	66.3%	87.0%	1.0%	1.5%	10.5%	100.0%
San Mateo	Santa Clara	78.1%	95.0%	1.5%	1.7%	1.8%	100.0%
San Mateo	Alameda	78.1%	95.5%	4.2%	0.3%	0.1%	100.0%
San Mateo	Contra Costa	78.7%	98.4%	1.6%	0.0%	0.0%	100.0%
San Mateo	Solano	77.7%	100.0%	0.0%	0.0%	0.0%	100.0%
San Mateo	Napa	82.8%	100.0%	0.0%	0.0%	0.0%	100.0%
San Mateo	Sonoma	70.9%	100.0%	0.0%	0.0%	0.0%	100.0%
San Mateo	Marin	77.9%	99.4%	0.3%	0.3%	0.0%	100.0%
Santa Clara	San Francisco	52.9%	68.8%	29.4%	0.3%	1.5%	100.0%
Santa Clara	San Mateo	77.0%	94.7%	3.7%	1.0%	0.7%	100.0%
Santa Clara	Santa Clara	65.4%	87.8%	3.7%	2.0%	6.5%	100.0%
Santa Clara	Alameda	78.2%	97.5%	1.3%	0.7%	0.5%	100.0%
Santa Clara	Contra Costa	70.4%	100.0%	0.0%	0.0%	0.0%	100.0%
Santa Clara	Solano	74.0%	100.0%	0.0%	0.0%	0.0%	100.0%
Santa Clara	Napa	64.7%	100.0%	0.0%	0.0%	0.0%	100.0%
Santa Clara	Sonoma	64.9%	99.9%	0.0%	0.0%	0.1%	100.0%
Santa Clara	Marin	75.7%	100.0%	0.0%	0.0%	0.0%	100.0%
Alameda	San Francisco	24.4%	33.9%	66.0%	0.1%	0.0%	100.0%
Alameda	San Mateo	74.1%	92.2%	7.1%	0.5%	0.2%	100.0%
Alameda	Santa Clara	81.3%	97.2%	2.2%	0.4%	0.2%	100.0%
Alameda	Alameda	60.7%	81.2%	4.4%	2.0%	12.4%	100.0%
Alameda	Contra Costa	76.1%	94.6%	3.5%	0.9%	1.0%	100.0%
Alameda	Solano	70.3%	99.1%	0.9%	0.0%	0.0%	100.0%
Alameda	Napa	79.8%	99.9%	0.0%	0.1%	0.0%	100.0%
Alameda	Sonoma	70.3%	100.0%	0.0%	0.0%	0.0%	100.0%
Alameda	Marin	81.8%	99.3%	0.7%	0.0%	0.0%	100.0%
Contra Costa	San Francisco	29.6%	41.2%	58.7%	0.0%	0.1%	100.0%
Contra Costa	San Mateo	71.7%	87.2%	12.7%	0.0%	0.0%	100.0%
Contra Costa	Santa Clara	77.5%	97.1%	2.6%	0.4%	0.0%	100.0%
Contra Costa	Alameda	77.7%	91.7%	7.4%	0.5%	0.4%	100.0%
Contra Costa	Contra Costa	67.1%	90.7%	0.9%	0.8%	7.6%	100.0%
Contra Costa	Solano	77.4%	99.3%	0.5%	0.2%	0.0%	100.0%
Contra Costa	Napa	76.4%	99.8%	0.0%	0.2%	0.0%	100.0%
Contra Costa	Sonoma	73.6%	100.0%	0.0%	0.0%	0.0%	100.0%
Contra Costa	Marin	81.2%	99.2%	0.8%	0.0%	0.0%	100.0%
Solano	San Francisco	47.9%	77.0%	23.0%	0.0%	0.0%	100.0%
Solano	San Mateo	66.7%	91.9%	8.1%	0.0%	0.0%	100.0%
Solano	Santa Clara	71.3%	100.0%	0.0%	0.0%	0.0%	100.0%
Solano	Alameda	75.8%	93.2%	6.7%	0.0%	0.0%	100.0%
Solano	Contra Costa	80.6%	99.4%	0.3%	0.2%	0.0%	100.0%
Solano	Solano	63.8%	89.3%	1.2%	1.1%	8.5%	100.0%

Table E.16
Share of County-to-County Total Trips by Mode: Year 2035 Baseline

County of Origin	County of Attr.	Driver	In-Vehicle	Transit	Bicycle	Walk	Total
Solano	Napa	84.6%	98.0%	0.5%	1.1%	0.5%	100.0%
Solano	Sonoma	76.0%	99.5%	0.0%	0.5%	0.1%	100.0%
Solano	Marin	82.8%	99.8%	0.0%	0.1%	0.0%	100.0%
Napa	San Francisco	58.7%	70.6%	29.3%	0.0%	0.1%	100.0%
Napa	San Mateo	86.0%	100.0%	0.0%	0.0%	0.0%	100.0%
Napa	Santa Clara	78.9%	100.0%	0.0%	0.0%	0.0%	100.0%
Napa	Alameda	82.1%	97.8%	2.1%	0.0%	0.0%	100.0%
Napa	Contra Costa	83.9%	99.7%	0.0%	0.3%	0.0%	100.0%
Napa	Solano	82.9%	98.5%	0.3%	0.6%	0.6%	100.0%
Napa	Napa	65.2%	88.1%	0.8%	1.6%	9.5%	100.0%
Napa	Sonoma	81.1%	99.3%	0.0%	0.7%	0.0%	100.0%
Napa	Marin	83.6%	99.9%	0.0%	0.1%	0.0%	100.0%
Sonoma	San Francisco	71.1%	89.3%	10.6%	0.0%	0.1%	100.0%
Sonoma	San Mateo	82.1%	99.7%	0.3%	0.0%	0.0%	100.0%
Sonoma	Santa Clara	77.5%	99.4%	0.0%	0.0%	0.6%	100.0%
Sonoma	Alameda	78.9%	99.8%	0.2%	0.0%	0.0%	100.0%
Sonoma	Contra Costa	81.1%	100.0%	0.0%	0.0%	0.0%	100.0%
Sonoma	Solano	80.3%	99.9%	0.0%	0.1%	0.0%	100.0%
Sonoma	Napa	75.4%	98.9%	0.0%	1.1%	0.0%	100.0%
Sonoma	Sonoma	67.6%	90.6%	1.1%	2.0%	6.2%	100.0%
Sonoma	Marin	84.8%	99.1%	0.5%	0.3%	0.1%	100.0%
Marin	San Francisco	71.9%	86.4%	11.5%	2.0%	0.1%	100.0%
Marin	San Mateo	84.5%	98.0%	1.5%	0.4%	0.1%	100.0%
Marin	Santa Clara	88.1%	99.9%	0.1%	0.0%	0.0%	100.0%
Marin	Alameda	86.6%	97.7%	2.3%	0.0%	0.0%	100.0%
Marin	Contra Costa	83.8%	99.0%	1.0%	0.0%	0.0%	100.0%
Marin	Solano	82.4%	100.0%	0.0%	0.1%	0.0%	100.0%
Marin	Napa	83.1%	99.9%	0.0%	0.1%	0.0%	100.0%
Marin	Sonoma	84.7%	99.4%	0.3%	0.3%	0.0%	100.0%
Marin	Marin	69.8%	89.3%	0.8%	2.0%	7.9%	100.0%
Bay Area	**Bay Area**	**62.3%**	**82.6%**	**6.1%**	**1.5%**	**9.8%**	**100.0%**
San Francisco	Bay Area	38.1%	49.1%	20.6%	1.4%	28.9%	100.0%
San Mateo	Bay Area	67.3%	87.2%	3.2%	1.5%	8.1%	100.0%
Santa Clara	Bay Area	66.1%	88.4%	3.8%	1.9%	5.9%	100.0%
Alameda	Bay Area	60.4%	79.9%	8.1%	1.7%	10.3%	100.0%
Contra Costa	Bay Area	66.8%	88.9%	4.1%	0.7%	6.3%	100.0%
Solano	Bay Area	65.7%	90.3%	1.6%	0.9%	7.2%	100.0%
Napa	Bay Area	67.5%	89.5%	0.9%	1.4%	8.2%	100.0%
Sonoma	Bay Area	68.1%	91.0%	1.1%	2.0%	6.0%	100.0%
Marin	Bay Area	71.1%	89.8%	1.6%	1.9%	6.7%	100.0%
Bay Area	San Francisco	36.2%	47.3%	27.6%	1.3%	23.8%	100.0%
Bay Area	San Mateo	68.6%	88.6%	1.9%	1.4%	8.1%	100.0%
Bay Area	Santa Clara	66.3%	88.4%	3.6%	2.0%	6.1%	100.0%
Bay Area	Alameda	63.0%	82.9%	4.6%	1.7%	10.7%	100.0%
Bay Area	Contra Costa	68.3%	91.4%	1.1%	0.8%	6.7%	100.0%
Bay Area	Solano	64.8%	90.1%	1.1%	1.0%	7.8%	100.0%
Bay Area	Napa	67.7%	89.9%	0.7%	1.4%	8.0%	100.0%
Bay Area	Sonoma	68.3%	91.6%	1.0%	1.9%	5.6%	100.0%
Bay Area	Marin	71.4%	90.6%	0.9%	1.8%	6.7%	100.0%
Bay Area	**Bay Area**	**62.3%**	**82.6%**	**6.1%**	**1.5%**	**9.8%**	**100.0%**

Table E.17
Trips by Mode by Trip Length: 2006 Base Year

1 Home-Based Work Trips and Modal Shares: Year 2006

Trip Distance (Miles)	Drive Alone	Shared Ride 2	Shared Ride 3+	Transit	Bicycle	Walk	Total	Drive Alone	Shared Ride 2	Shared Ride 3+	Transit	Bicycle	Walk	Total
0 - 1	288,219	35,089	9,591	39,955	11,823	121,165	505,842	57.0%	6.9%	1.9%	7.9%	2.3%	24.0%	100.0%
1 - 2	349,822	45,508	12,320	46,002	12,030	23,314	488,996	71.5%	9.3%	2.5%	9.4%	2.5%	4.8%	100.0%
2 - 3	298,584	39,827	10,753	39,897	9,214	6,429	404,703	73.8%	9.8%	2.7%	9.9%	2.3%	1.6%	100.0%
3 - 4	244,189	33,179	9,040	33,347	6,260	2,027	328,042	74.4%	10.1%	2.8%	10.2%	1.9%	0.6%	100.0%
4 - 5	206,411	27,791	7,679	23,249	4,151	1,005	270,287	76.4%	10.3%	2.8%	8.6%	1.5%	0.4%	100.0%
5 - 10	714,269	96,956	27,794	82,435	8,379	2,675	932,508	76.6%	10.4%	3.0%	8.8%	0.9%	0.3%	100.0%
10 - 15	448,548	65,882	24,901	77,662	2,767	1,144	620,903	72.2%	10.6%	4.0%	12.5%	0.4%	0.2%	100.0%
15 - 20	294,215	47,852	18,584	45,858	1,273	784	408,567	72.0%	11.7%	4.5%	11.2%	0.3%	0.2%	100.0%
20+	649,041	125,613	60,060	123,871	1,043	2,257	961,884	67.5%	13.1%	6.2%	12.9%	0.1%	0.2%	100.0%
Total	3,493,297	517,697	180,723	512,276	56,939	160,800	4,921,732	71.0%	10.5%	3.7%	10.4%	1.2%	3.3%	100.0%

2. Total Trips (Work + Non-Work) and Modal Shares: Year 2006

Trip Distance (Miles)	Vehicle Driver	Vehicler Passenger	Transit	Bicycle	Walk	Total	Vehicle Driver	Vehicler Passenger	Transit	Bicycle	Walk	Total
0 - 1	2,021,477	952,709	176,168	66,145	1,387,760	4,604,260	43.9%	20.7%	3.8%	1.4%	30.1%	100.0%
1 - 2	2,114,551	817,209	180,946	73,357	551,417	3,737,480	56.6%	21.9%	4.8%	2.0%	14.8%	100.0%
2 - 3	1,626,195	582,627	138,022	57,523	160,195	2,564,561	63.4%	22.7%	5.4%	2.2%	6.2%	100.0%
3 - 4	1,147,479	391,155	97,264	39,545	37,538	1,712,982	67.0%	22.8%	5.7%	2.3%	2.2%	100.0%
4 - 5	858,977	282,668	66,955	28,231	11,662	1,248,494	68.8%	22.6%	5.4%	2.3%	0.9%	100.0%
5 - 10	2,285,700	690,379	169,614	64,579	14,123	3,224,395	70.9%	21.4%	5.3%	2.0%	0.4%	100.0%
10 - 15	1,099,180	308,111	106,188	21,698	1,181	1,536,356	71.5%	20.1%	6.9%	1.4%	0.1%	100.0%
15 - 20	623,477	164,729	55,446	6,954	785	851,390	73.2%	19.3%	6.5%	0.8%	0.1%	100.0%
20+	1,310,371	327,670	132,714	2,985	2,257	1,775,995	73.8%	18.4%	7.5%	0.2%	0.1%	100.0%
Total	13,087,407	4,517,256	1,123,315	361,017	2,166,918	21,255,914	61.6%	21.3%	5.3%	1.7%	10.2%	100.0%

Table E.18
Trips by Mode by Trip Length: 2035 Baseline

1 Home-Based Work Trips and Modal Shares: Year 2035 Baseline

Trip Distance (Miles)	Drive Alone	Shared Ride 2	Shared Ride 3+	Transit	Bicycle	Walk	Total	Drive Alone	Shared Ride 2	Shared Ride 3+	Transit	Bicycle	Walk	Total
0 - 1	470,966	59,137	15,716	66,660	21,846	203,689	838,013	56.2%	7.1%	1.9%	8.0%	2.6%	24.3%	100.0%
1 - 2	566,086	75,054	19,823	77,504	22,167	37,202	797,836	71.0%	9.4%	2.5%	9.7%	2.8%	4.7%	100.0%
2 - 3	464,258	64,435	16,888	65,377	17,462	9,884	638,304	72.7%	10.1%	2.6%	10.2%	2.7%	1.5%	100.0%
3 - 4	402,704	56,484	14,866	53,323	12,209	3,516	543,101	74.1%	10.4%	2.7%	9.8%	2.2%	0.6%	100.0%
4 - 5	339,342	47,959	12,793	38,411	8,833	1,864	449,202	75.5%	10.7%	2.8%	8.6%	2.0%	0.4%	100.0%
5 - 10	1,122,103	159,641	44,468	137,331	17,716	4,142	1,485,401	75.5%	10.7%	3.0%	9.2%	1.2%	0.3%	100.0%
10 - 15	643,312	100,214	37,595	131,713	5,594	1,548	919,976	69.9%	10.9%	4.1%	14.3%	0.6%	0.2%	100.0%
15 - 20	414,775	72,412	28,222	84,168	2,549	995	603,121	68.8%	12.0%	4.7%	14.0%	0.4%	0.2%	100.0%
20+	900,636	201,110	117,804	276,563	2,433	3,029	1,501,575	60.0%	13.4%	7.8%	18.4%	0.2%	0.2%	100.0%
Total	5,324,182	836,445	308,175	931,051	110,808	265,868	7,776,528	68.5%	10.8%	4.0%	12.0%	1.4%	3.4%	100.0%

2. Total Trips (Work + Non-Work) and Modal Shares: Year 2035 Baseline

Trip Distance (Miles)	Vehicle Driver	Vehicler Passenger	Transit	Bicycle	Walk	Total	Vehicle Driver	Vehicler Passenger	Transit	Bicycle	Walk	Total
0 - 1	2,888,704	1,244,636	257,089	84,543	1,843,227	6,318,199	45.7%	19.7%	4.1%	1.3%	29.2%	100.0%
1 - 2	3,007,913	1,087,554	267,145	92,645	746,035	5,201,291	57.8%	20.9%	5.1%	1.8%	14.3%	100.0%
2 - 3	2,223,591	743,978	202,014	70,964	182,712	3,423,258	65.0%	21.7%	5.9%	2.1%	5.3%	100.0%
3 - 4	1,653,781	523,320	144,717	49,644	46,007	2,417,469	68.4%	21.6%	6.0%	2.1%	1.9%	100.0%
4 - 5	1,221,455	369,730	98,795	35,464	13,695	1,739,140	70.2%	21.3%	5.7%	2.0%	0.8%	100.0%
5 - 10	3,138,329	870,977	249,451	77,371	15,503	4,351,631	72.1%	20.0%	5.7%	1.8%	0.4%	100.0%
10 - 15	1,446,132	384,423	166,694	24,898	1,580	2,023,726	71.5%	19.0%	8.2%	1.2%	0.1%	100.0%
15 - 20	823,558	206,455	96,273	8,062	995	1,135,342	72.5%	18.2%	8.5%	0.7%	0.1%	100.0%
20+	1,738,660	458,679	292,833	4,434	3,029	2,497,634	69.6%	18.4%	11.7%	0.2%	0.1%	100.0%
Total	18,142,122	5,889,751	1,775,011	448,024	2,852,782	29,107,691	62.3%	20.2%	6.1%	1.5%	9.8%	100.0%

Table E.19
Trips by Mode by Trip Length: 2035 + Pricing

1 Home-Based Work Trips and Modal Shares: Year 2035 + Pricing

Trip Distance (Miles)	Drive Alone	Shared Ride 2	Shared Ride 3+	Transit	Bicycle	Walk	Total	Drive Alone	Shared Ride 2	Shared Ride 3+	Transit	Bicycle	Walk	Total
0 - 1	430,426	63,185	18,249	74,739	26,050	226,783	839,431	51.3%	7.5%	2.2%	8.9%	3.1%	27.0%	100.0%
1 - 2	530,880	82,509	23,637	88,053	27,196	45,740	798,014	66.5%	10.3%	3.0%	11.0%	3.4%	5.7%	100.0%
2 - 3	440,889	71,913	20,527	76,157	21,650	12,549	643,685	68.5%	11.2%	3.2%	11.8%	3.4%	1.9%	100.0%
3 - 4	368,327	61,229	17,630	60,750	15,369	4,565	527,870	69.8%	11.6%	3.3%	11.5%	2.9%	0.9%	100.0%
4 - 5	318,863	53,559	15,715	45,866	10,947	2,471	447,422	71.3%	12.0%	3.5%	10.3%	2.4%	0.6%	100.0%
5 - 10	1,054,891	183,042	55,320	163,033	24,338	5,999	1,486,622	71.0%	12.3%	3.7%	11.0%	1.6%	0.4%	100.0%
10 - 15	593,344	116,959	46,810	157,165	8,492	2,432	925,203	64.1%	12.6%	5.1%	17.0%	0.9%	0.3%	100.0%
15 - 20	373,803	86,082	36,648	100,357	4,182	1,729	602,802	62.0%	14.3%	6.1%	16.6%	0.7%	0.3%	100.0%
20+	744,582	243,780	171,523	334,502	4,387	6,704	1,505,479	49.5%	16.2%	11.4%	22.2%	0.3%	0.4%	100.0%
Total	4,856,005	962,258	406,058	1,100,623	142,611	308,973	7,776,528	62.4%	12.4%	5.2%	14.2%	1.8%	4.0%	100.0%

2. Total Trips (Work + Non-Work) and Modal Shares: Year 2035 + Pricing

Trip Distance (Miles)	Vehicle Driver	Vehicler Passenger	Transit	Bicycle	Walk	Total	Vehicle Driver	Vehicler Passenger	Transit	Bicycle	Walk	Total
0 - 1	2,224,575	858,687	349,503	132,889	2,760,790	6,326,444	35.2%	13.6%	5.5%	2.1%	43.6%	100.0%
1 - 2	2,676,543	891,096	357,686	152,786	1,133,653	5,211,764	51.4%	17.1%	6.9%	2.9%	21.8%	100.0%
2 - 3	2,102,556	665,066	273,778	120,449	275,856	3,437,705	61.2%	19.3%	8.0%	3.5%	8.0%	100.0%
3 - 4	1,541,074	470,301	192,878	83,216	69,970	2,357,440	65.4%	19.9%	8.2%	3.5%	3.0%	100.0%
4 - 5	1,176,588	347,582	135,349	61,140	21,609	1,742,268	67.5%	19.9%	7.8%	3.5%	1.2%	100.0%
5 - 10	3,031,389	829,228	335,845	141,404	22,564	4,360,429	69.5%	19.0%	7.7%	3.2%	0.5%	100.0%
10 - 15	1,389,483	372,324	214,013	50,269	2,479	2,028,567	68.5%	18.4%	10.5%	2.5%	0.1%	100.0%
15 - 20	788,012	210,412	121,345	17,251	1,730	1,138,750	69.2%	18.5%	10.7%	1.5%	0.2%	100.0%
20+	1,621,637	507,070	359,062	9,864	6,704	2,504,339	64.8%	20.2%	14.3%	0.4%	0.3%	100.0%
Total	16,551,858	5,151,767	2,339,458	769,268	4,295,355	29,107,707	56.9%	17.7%	8.0%	2.6%	14.8%	100.0%

Table E.20
Trips by Mode by Trip Length: 2035 + Land Use

1. Home-Based Work Trips and Modal Shares: Year 2035 + Land Use

Trip Distance (Miles)	Drive Alone	Shared Ride 2	Shared Ride 3+	Transit	Bicycle	Walk	Total	Drive Alone	Shared Ride 2	Shared Ride 3+	Transit	Bicycle	Walk	Total
0 - 1	523,261	68,864	18,809	114,631	32,220	374,720	1,132,505	46.2%	6.1%	1.7%	10.1%	2.8%	33.1%	100.0%
1 - 2	602,916	83,838	22,426	113,782	32,447	47,172	902,580	66.8%	9.3%	2.5%	12.6%	3.6%	5.2%	100.0%
2 - 3	510,049	72,645	19,367	85,443	24,643	12,100	724,247	70.4%	10.0%	2.7%	11.8%	3.4%	1.7%	100.0%
3 - 4	416,042	59,684	15,961	61,776	16,657	4,112	574,231	72.5%	10.4%	2.8%	10.8%	2.9%	0.7%	100.0%
4 - 5	361,458	52,093	13,965	44,147	12,798	2,293	486,753	74.3%	10.7%	2.9%	9.1%	2.6%	0.5%	100.0%
5 - 10	1,165,829	165,272	45,436	133,693	24,412	4,827	1,539,469	75.7%	10.7%	3.0%	8.7%	1.6%	0.3%	100.0%
10 - 15	671,142	103,829	35,353	110,104	7,518	1,708	929,653	72.2%	11.2%	3.8%	11.8%	0.8%	0.2%	100.0%
15 - 20	422,426	73,005	26,905	64,792	3,316	985	591,429	71.4%	12.3%	4.5%	11.0%	0.6%	0.2%	100.0%
20+	835,869	176,119	88,866	181,243	2,108	1,487	1,285,693	65.0%	13.7%	6.9%	14.1%	0.2%	0.1%	100.0%
Total	5,508,991	855,349	287,088	909,610	156,120	449,402	8,166,560	67.5%	10.5%	3.5%	11.1%	1.9%	5.5%	100.0%

2. Total Trips (Work + Non-Work) and Modal Shares: Year 2035 + Land Use

Trip Distance (Miles)	Vehicle Driver	Vehicler Passenger	Transit	Bicycle	Walk	Total	Vehicle Driver	Vehicler Passenger	Transit	Bicycle	Walk	Total
0 - 1	2,899,403	1,230,706	365,250	96,293	2,131,561	6,723,214	43.1%	18.3%	5.4%	1.4%	31.7%	100.0%
1 - 2	3,021,475	1,071,938	347,548	102,794	778,239	5,321,994	56.8%	20.1%	6.5%	1.9%	14.6%	100.0%
2 - 3	2,284,257	748,050	243,424	78,429	192,887	3,547,047	64.4%	21.1%	6.9%	2.2%	5.4%	100.0%
3 - 4	1,633,150	505,611	160,325	53,427	47,256	2,399,768	68.1%	21.1%	6.7%	2.2%	2.0%	100.0%
4 - 5	1,243,491	367,816	109,658	39,770	14,498	1,775,233	70.0%	20.7%	6.2%	2.2%	0.8%	100.0%
5 - 10	3,165,786	854,567	261,245	84,204	16,503	4,382,306	72.2%	19.5%	6.0%	1.9%	0.4%	100.0%
10 - 15	1,476,904	378,581	153,953	26,593	1,735	2,037,766	72.5%	18.6%	7.6%	1.3%	0.1%	100.0%
15 - 20	832,863	202,699	78,432	8,679	985	1,123,657	74.1%	18.0%	7.0%	0.8%	0.1%	100.0%
20+	1,642,471	413,897	194,211	4,106	1,487	2,256,172	72.8%	18.3%	8.6%	0.2%	0.1%	100.0%
Total	18,199,800	5,773,866	1,914,045	494,295	3,185,152	29,567,157	61.6%	19.5%	6.5%	1.7%	10.8%	100.0%

Table E.21
Trips by Mode by Trip Length: 2035 + Land Use + Pricing

1. Home-Based Work Trips and Modal Shares: Year 2035 + Land Use + Pricing

Trip Distance (Miles)	Drive Alone	Shared Ride 2	Shared Ride 3+	Transit	Bicycle	Walk	Total	Drive Alone	Shared Ride 2	Shared Ride 3+	Transit	Bicycle	Walk	Total
0 - 1	475,313	72,785	21,504	124,543	37,408	401,695	1,133,248	41.9%	6.4%	1.9%	11.0%	3.3%	35.4%	100.0%
1 - 2	565,402	91,091	26,374	123,179	38,133	56,064	900,244	62.8%	10.1%	2.9%	13.7%	4.2%	6.2%	100.0%
2 - 3	473,067	78,917	22,782	93,635	30,079	15,065	713,544	66.3%	11.1%	3.2%	13.1%	4.2%	2.1%	100.0%
3 - 4	395,800	66,907	19,395	71,288	20,850	5,346	579,585	68.3%	11.5%	3.3%	12.3%	3.6%	0.9%	100.0%
4 - 5	335,667	56,898	16,655	50,881	14,834	2,977	477,911	70.2%	11.9%	3.5%	10.6%	3.1%	0.6%	100.0%
5 - 10	1,093,494	188,309	56,300	158,306	31,943	6,743	1,535,095	71.2%	12.3%	3.7%	10.3%	2.1%	0.4%	100.0%
10 - 15	622,672	121,389	44,659	133,710	11,290	2,571	936,290	66.5%	13.0%	4.8%	14.3%	1.2%	0.3%	100.0%
15 - 20	383,782	87,163	35,580	82,621	5,232	1,711	596,090	64.4%	14.6%	6.0%	13.9%	0.9%	0.3%	100.0%
20+	704,910	220,133	131,001	231,299	4,021	3,188	1,294,552	54.5%	17.0%	10.1%	17.9%	0.3%	0.2%	100.0%
Total	5,050,106	983,593	374,249	1,069,461	193,790	495,361	8,166,560	61.8%	12.0%	4.6%	13.1%	2.4%	6.1%	100.0%

2. Total Trips (Work + Non-Work) and Modal Shares: Year 2035 + Land Use + Pricing

Trip Distance (Miles)	Vehicle Driver	Vehicler Passenger	Transit	Bicycle	Walk	Total	Vehicle Driver	Vehicler Passenger	Transit	Bicycle	Walk	Total
0 - 1	2,234,845	848,288	460,410	144,286	3,033,377	6,721,205	33.3%	12.6%	6.9%	2.1%	45.1%	100.0%
1 - 2	2,686,245	879,713	436,242	162,718	1,151,351	5,316,269	50.5%	16.5%	8.2%	3.1%	21.7%	100.0%
2 - 3	2,119,570	659,189	310,828	127,917	287,196	3,504,700	60.5%	18.8%	8.9%	3.6%	8.2%	100.0%
3 - 4	1,572,027	468,416	211,863	88,958	73,815	2,415,079	65.1%	19.4%	8.8%	3.7%	3.1%	100.0%
4 - 5	1,182,057	340,976	145,364	64,628	22,894	1,755,919	67.3%	19.4%	8.3%	3.7%	1.3%	100.0%
5 - 10	3,059,037	816,376	349,144	148,186	24,084	4,396,826	69.6%	18.6%	7.9%	3.4%	0.5%	100.0%
10 - 15	1,425,701	371,100	200,058	52,649	2,616	2,052,124	69.5%	18.1%	9.7%	2.6%	0.1%	100.0%
15 - 20	799,179	208,343	105,667	18,152	1,712	1,133,053	70.5%	18.4%	9.3%	1.6%	0.2%	100.0%
20+	1,546,481	458,964	253,844	9,521	3,188	2,271,999	68.1%	20.2%	11.2%	0.4%	0.1%	100.0%
Total	16,625,142	5,051,365	2,473,419	817,016	4,600,233	29,567,175	56.2%	17.1%	8.4%	2.8%	15.6%	100.0%

Table E.22
Bay Area Regional Trips by Trip Purpose and Travel Mode

Trip Purpose Travel Mode	2006 Base Year	2035 Baseline	2035 Base + Pricing	2035 Base + Land Use	2035 Base +Pricing + Land Use
Home-Based Work, Income Quartile 1 (< $25,000)					
Drive Alone	298,006	220,079	197,885	222,760	202,154
Shared Ride 2	59,233	49,746	52,313	48,143	50,697
Shared Ride 3+	22,639	20,914	25,493	21,918	26,028
Transit	72,141	62,253	70,813	70,399	77,916
Bicycle	11,804	11,002	12,872	17,759	20,135
Walk	46,015	41,912	46,530	65,162	69,211
Total	509,838	405,906	405,906	446,141	446,141
Home-Based Work, Income Quartile 2 ($25000 - $45000)					
Drive Alone	617,616	739,576	668,618	764,884	696,526
Shared Ride 2	102,584	136,690	151,894	140,716	156,015
Shared Ride 3+	37,669	57,036	73,762	52,712	66,697
Transit	101,601	150,597	176,611	157,790	181,960
Bicycle	12,049	20,475	25,136	31,501	37,669
Walk	36,437	57,302	65,655	98,388	107,124
Total	907,956	1,161,676	1,161,676	1,245,991	1,245,991
Home-Based Work, Income Quartile 3 ($45000 - $75000)					
Drive Alone	1,090,074	1,642,182	1,497,499	1,696,521	1,557,556
Shared Ride 2	160,148	262,916	302,749	265,839	307,261
Shared Ride 3+	54,217	95,076	125,395	83,596	110,445
Transit	146,285	275,107	327,861	239,418	286,138
Bicycle	15,630	33,738	43,277	43,151	53,825
Walk	38,775	74,774	87,012	117,130	130,430
Total	1,505,129	2,383,793	2,383,793	2,445,655	2,445,655
Home-Based Work, Income Quartile 4 (> $75000)					
Drive Alone	1,487,602	2,722,344	2,492,002	2,824,826	2,593,870
Shared Ride 2	195,731	387,094	455,303	400,651	469,619
Shared Ride 3+	66,197	135,147	181,408	128,861	171,079
Transit	192,250	443,095	525,339	442,004	523,449
Bicycle	17,455	45,593	61,326	63,708	82,159
Walk	39,574	91,880	109,775	168,723	188,597
Total	1,998,809	3,825,153	3,825,153	4,028,773	4,028,773
Home-Based Work, TOTAL					
Drive Alone	3,493,298	5,324,181	4,856,004	5,508,991	5,050,106
Shared Ride 2	517,696	836,446	962,259	855,349	983,592
Shared Ride 3+	180,722	308,173	406,058	287,087	374,249
Transit	512,277	931,052	1,100,624	909,611	1,069,463
Bicycle	56,938	110,808	142,611	156,119	193,788
Walk	160,801	265,868	308,972	449,403	495,362
Total	4,921,732	7,776,528	7,776,528	8,166,560	8,166,560

Table E.22 (continued)
Bay Area Regional Trips by Trip Purpose and Travel Mode

Trip Purpose Travel Mode	2006 Base Year	2035 Baseline	2035 Base + Pricing	2035 Base + Land Use	2035 Base +Pricing + Land Use
Home-Based Shop (Other)					
Drive Alone	2,655,425	3,398,529	3,355,193	3,346,383	3,297,568
Shared Ride 2	1,472,811	1,865,511	1,823,387	1,828,893	1,786,842
Shared Ride 3+	858,837	1,056,006	1,030,403	996,451	972,440
Transit	210,121	323,934	364,868	412,535	456,949
Bicycle	34,131	46,170	52,027	47,121	53,018
Walk	481,245	652,297	716,569	743,280	807,846
Total	5,712,570	7,342,447	7,342,447	7,374,663	7,374,663
Home-Based Social/Recreation					
Drive Alone	886,935	1,140,547	975,441	1,124,959	962,826
Shared Ride 2	692,643	936,381	772,515	938,095	773,658
Shared Ride 3+	585,922	744,028	613,883	727,097	600,350
Transit	75,364	111,308	210,366	141,542	243,622
Bicycle	89,139	94,409	187,453	93,253	183,630
Walk	259,291	336,194	603,209	348,841	609,701
Total	2,589,294	3,362,867	3,362,867	3,373,787	3,373,787
Non-Home-Based					
Vehicle Driver	3,846,645	5,434,023	4,605,579	5,418,475	4,601,213
Vehicle Passenger	878,214	1,258,426	1,064,760	1,252,953	1,062,221
Transit	138,638	199,050	350,543	215,229	368,906
Bicycle	54,759	74,011	175,932	75,588	177,838
Walk	729,278	1,063,078	1,831,774	1,109,373	1,861,440
Total	5,647,534	8,028,588	8,028,588	8,071,618	8,071,618
Home-Based Grade School					
Vehicle Passenger	776,634	915,361	522,289	901,929	518,136
Transit	69,860	69,906	115,331	73,004	118,459
Bicycle	68,960	61,082	136,738	60,045	133,899
Walk	383,723	370,976	642,967	362,354	626,838
Total	1,299,177	1,417,325	1,417,325	1,397,332	1,397,332
Home-Based High School					
Vehicle Driver	84,657	93,000	83,094	90,485	80,551
Vehicle Passenger	272,493	288,710	228,674	273,356	217,669
Transit	62,139	81,164	120,883	92,529	128,682
Bicycle	26,478	27,596	34,356	26,543	33,025
Walk	107,956	113,731	137,194	109,751	132,737
Total	553,723	604,201	604,201	592,664	592,664
Home-Based College					
Vehicle Driver	314,450	330,327	311,654	324,870	304,535
Vehicle Passenger	87,745	102,825	93,019	98,867	91,107
Transit	54,918	58,599	76,844	69,595	87,339
Bicycle	30,611	33,947	40,151	35,625	41,816
Walk	44,624	50,639	54,669	62,150	66,310
Total	532,348	576,337	576,337	591,107	591,107

Table E.22 (continued)
Bay Area Regional Trips by Trip Purpose and Travel Mode

Trip Purpose Travel Mode	2006 Base Year	2035 Baseline	2035 Base + Pricing	2035 Base + Land Use	2035 Base +Pricing + Land Use
Home-Based School, TOTAL					
Vehicle Driver	399,107	423,327	394,748	415,355	385,086
Vehicle Passenger	1,136,872	1,306,896	843,982	1,274,152	826,912
Transit	186,917	209,669	313,058	235,128	334,480
Bicycle	126,049	122,625	211,245	122,213	208,740
Walk	536,303	535,346	834,830	534,255	825,885
Total	2,385,248	2,597,863	2,597,863	2,581,103	2,581,103
Grand Total, All Trip Purposes					
Drive Alone	7,035,658	9,863,257	9,186,638	9,980,333	9,310,500
Shared Ride 2	2,683,150	3,638,338	3,558,161	3,622,337	3,544,092
Shared Ride 3+	1,625,481	2,108,207	2,050,344	2,010,635	1,947,039
Vehicle Driver	4,245,752	5,857,350	5,000,327	5,833,830	4,986,299
Vehicle Passenger	2,015,086	2,565,322	1,908,742	2,527,105	1,889,133
Transit	1,123,317	1,775,013	2,339,459	1,914,045	2,473,420
Bicycle	361,016	448,023	769,268	494,294	817,014
Walk	2,166,918	2,852,783	4,295,354	3,185,152	4,600,234
Total	21,256,378	29,108,293	29,108,293	29,567,731	29,567,731
Computed Veh. Driv.	13,087,408	18,142,121	16,551,858	18,199,799	16,625,142
Computed Veh. Occ.	1.345	1.325	1.311	1.317	1.304

Table E.22 (continued)
Bay Area Regional Trips by Trip Purpose and Travel Mode

Trip Purpose Travel Mode	2035 HOT/Exp	2035 HOT/Exp + Pricing	2035 HOT/Exp + Land Use	2035 HOT/Exp + Pricing + Land Use	035 HOT/Exp + Pricing +Land Use + Telecomm
Home-Based Work, Income Quartile 1 (< $25,000)					
Drive Alone	217,901	193,760	220,326	198,482	179,983
Shared Ride 2	43,759	45,201	43,506	44,761	40,558
Shared Ride 3+	22,694	29,594	21,735	26,890	23,830
Transit	70,029	80,100	79,468	88,768	80,131
Bicycle	10,473	12,204	16,930	19,184	17,181
Walk	41,050	45,047	64,176	68,056	61,115
Total	405,906	405,906	446,141	446,141	402,797
Home-Based Work, Income Quartile 2 ($25000 - $45000)					
Drive Alone	731,878	656,977	757,174	686,074	619,866
Shared Ride 2	125,914	137,370	131,362	142,605	128,936
Shared Ride 3+	60,887	81,808	52,991	69,158	61,301
Transit	166,818	197,105	176,901	206,138	185,467
Bicycle	19,727	24,183	30,322	36,247	32,413
Walk	56,452	64,233	97,241	105,769	94,986
Total	1,161,676	1,161,676	1,245,991	1,245,991	1,122,970
Home-Based Work, Income Quartile 3 ($45000 - $75000)					
Drive Alone	1,628,390	1,476,295	1,683,047	1,539,647	1,389,657
Shared Ride 2	245,560	277,534	251,531	284,379	256,635
Shared Ride 3+	98,872	134,748	83,906	114,056	101,167
Transit	304,350	367,531	269,439	326,485	292,836
Bicycle	32,687	41,836	41,785	52,076	46,510
Walk	73,934	85,849	115,947	129,012	115,916
Total	2,383,793	2,383,793	2,445,655	2,445,655	2,202,720
Home-Based Work, Income Quartile 4 (> $75000)					
Drive Alone	2,704,739	2,464,671	2,805,157	2,569,417	2,319,093
Shared Ride 2	362,242	416,180	378,835	432,909	390,578
Shared Ride 3+	138,323	192,896	128,909	176,688	156,263
Transit	483,990	582,610	486,050	582,309	521,674
Bicycle	44,743	60,124	62,411	80,545	71,900
Walk	91,116	108,672	167,411	186,905	167,907
Total	3,825,153	3,825,153	4,028,773	4,028,773	3,627,416
Home-Based Work, TOTAL					
Drive Alone	5,282,908	4,791,703	5,465,704	4,993,620	4,508,599
Shared Ride 2	777,475	876,285	805,234	904,654	816,707
Shared Ride 3+	320,776	439,046	287,541	386,792	342,561
Transit	1,025,187	1,227,346	1,011,858	1,203,700	1,080,108
Bicycle	107,630	138,347	151,448	188,052	168,004
Walk	262,552	303,801	444,775	489,742	439,924
Total	7,776,528	7,776,528	8,166,560	8,166,560	7,355,903

Table E.22 (continued)
Bay Area Regional Trips by Trip Purpose and Travel Mode

Trip Purpose Travel Mode	2035 HOT/Exp	2035 HOT/Exp + Pricing	2035 HOT/Exp + Land Use	2035 HOT/Exp +Pricing + Land Use	HOTLUPR+Telecomm Pass #3
Home-Based Shop (Other)					
Drive Alone	3,377,364	3,325,227	3,326,799	3,282,161	3,283,606
Shared Ride 2	1,815,102	1,774,643	1,785,237	1,748,014	1,749,121
Shared Ride 3+	1,081,747	1,054,745	1,012,016	989,426	985,685
Transit	374,084	424,425	465,702	503,045	504,634
Bicycle	45,923	51,700	46,875	52,958	52,874
Walk	648,227	711,707	738,034	792,639	792,323
Total	7,342,447	7,342,447	7,374,663	7,368,243	7,368,243
Home-Based Social/Recreation					
Drive Alone	1,135,870	962,376	1,120,272	955,236	955,613
Shared Ride 2	919,012	738,335	920,364	738,014	739,427
Shared Ride 3+	745,731	620,739	727,206	603,070	601,680
Transit	133,915	258,298	166,481	289,121	289,668
Bicycle	93,668	184,351	92,573	180,365	179,641
Walk	334,671	598,768	346,891	605,065	604,842
Total	3,362,867	3,362,867	3,373,787	3,370,871	3,370,871
Non-Home-Based					
Vehicle Driver	5,395,903	4,527,905	5,378,082	4,519,995	4,520,311
Vehicle Passenger	1,249,145	1,046,344	1,243,284	1,043,115	1,043,167
Transit	252,490	464,401	271,756	488,518	489,793
Bicycle	73,190	172,506	74,814	174,226	173,214
Walk	1,057,860	1,817,432	1,103,682	1,845,764	1,845,133
Total	8,028,588	8,028,588	8,071,618	8,071,618	8,071,618
Home-Based Grade School					
Vehicle Passenger	905,796	504,754	889,921	499,184	503,276
Transit	83,961	142,004	87,403	145,695	145,753
Bicycle	60,269	134,625	59,723	132,645	129,914
Walk	367,299	635,942	360,285	619,808	618,389
Total	1,417,325	1,417,325	1,397,332	1,397,332	1,397,332
Home-Based High School					
Vehicle Driver	92,699	82,742	90,060	79,067	79,149
Vehicle Passenger	283,959	218,284	268,642	208,727	209,285
Transit	86,592	132,177	97,977	139,317	138,949
Bicycle	27,514	34,283	26,482	33,024	32,924
Walk	113,437	136,715	109,503	132,529	132,357
Total	604,201	604,201	592,664	592,664	592,664
Home-Based College					
Vehicle Driver	329,208	307,612	322,570	300,884	301,093
Vehicle Passenger	93,680	82,644	91,490	81,283	81,458
Transit	69,224	91,869	79,943	101,763	101,641
Bicycle	33,733	39,741	35,251	41,326	41,120
Walk	50,492	54,471	61,853	65,851	65,795
Total	576,337	576,337	591,107	591,107	591,107

Table E.22 (continued)
Bay Area Regional Trips by Trip Purpose and Travel Mode

Trip Purpose Travel Mode	2035 HOT/Exp	2035 HOT/Exp + Pricing	2035 HOT/Exp + Land Use	2035 HOT/Exp +Pricing + Land Use	HOTLUPR+Telecomm Pass #3
Home-Based School, TOTAL					
Vehicle Driver	421,907	390,354	412,630	379,951	380,242
Vehicle Passenger	1,283,435	805,682	1,250,053	789,194	794,019
Transit	239,777	366,050	265,323	386,775	386,343
Bicycle	121,516	208,649	121,456	206,995	203,958
Walk	531,228	827,128	531,641	818,188	816,541
Total	2,597,863	2,597,863	2,581,103	2,581,103	2,581,103
Grand Total, All Trip Purposes					
Drive Alone	9,796,142	9,079,306	9,912,775	9,231,017	8,747,818
Shared Ride 2	3,511,589	3,389,263	3,510,835	3,390,682	3,305,255
Shared Ride 3+	2,148,254	2,114,530	2,026,763	1,979,288	1,929,926
Vehicle Driver	5,817,810	4,918,259	5,790,712	4,899,946	4,900,553
Vehicle Passenger	2,532,580	1,852,026	2,493,337	1,832,309	1,837,186
Transit	2,025,453	2,740,520	2,181,120	2,871,159	2,750,546
Bicycle	441,927	755,553	487,166	802,596	777,691
Walk	2,834,538	4,258,836	3,165,023	4,551,398	4,498,763
Total	29,108,293	29,108,293	29,567,731	29,558,395	28,747,738
Computed Veh. Driv.	17,983,533	16,296,348	18,037,980	16,391,815	15,852,406
Computed Veh. Occ.	1.324	1.310	1.316	1.301	1.307

Table E.22 (continued)
Bay Area Regional Trips by Trip Purpose and Travel Mode

Trip Purpose Travel Mode	2035-RRF	2035-RRF + Pricing	2035-RRF + Land Use	2035-RRF +Pricing + Land Use
Home-Based Work, Income Quartile 1 (< $25,000)				
Drive Alone	217,330	194,439	220,261	198,850
Shared Ride 2	46,914	49,566	45,686	48,057
Shared Ride 3+	19,861	24,202	20,851	24,640
Transit	70,550	80,933	77,917	87,147
Bicycle	10,542	12,279	17,145	19,391
Walk	40,709	44,487	64,281	68,056
Total	405,906	405,906	446,141	446,141
Home-Based Work, Income Quartile 2 ($25000 - $45000)				
Drive Alone	732,371	659,603	757,799	687,473
Shared Ride 2	132,186	147,051	136,168	150,628
Shared Ride 3+	55,053	71,188	51,070	64,357
Transit	165,678	195,368	172,765	200,942
Bicycle	19,960	24,420	30,702	36,623
Walk	56,428	64,046	97,487	105,968
Total	1,161,676	1,161,676	1,245,991	1,245,991
Home-Based Work, Income Quartile 3 ($45000 - $75000)				
Drive Alone	1,625,355	1,476,108	1,681,584	1,538,334
Shared Ride 2	256,177	294,005	259,845	299,118
Shared Ride 3+	91,956	120,725	81,551	107,101
Transit	303,042	364,618	264,052	319,190
Bicycle	33,046	42,193	42,339	52,574
Walk	74,217	86,144	116,284	129,338
Total	2,383,793	2,383,793	2,445,655	2,445,655
Home-Based Work, Income Quartile 4 (> $75000)				
Drive Alone	2,695,352	2,457,772	2,796,606	2,559,835
Shared Ride 2	377,889	441,979	391,553	456,415
Shared Ride 3+	130,512	173,701	125,165	164,907
Transit	485,161	582,856	485,013	580,031
Bicycle	44,915	60,019	62,745	80,426
Walk	91,324	108,826	167,691	187,159
Total	3,825,153	3,825,153	4,028,773	4,028,773
Home-Based Work, TOTAL				
Drive Alone	5,270,408	4,787,922	5,456,250	4,984,492
Shared Ride 2	813,166	932,601	833,252	954,218
Shared Ride 3+	297,382	389,816	278,637	361,005
Transit	1,024,431	1,223,775	999,747	1,187,310
Bicycle	108,463	138,911	152,931	189,014
Walk	262,678	303,503	445,743	490,521
Total	7,776,528	7,776,528	8,166,560	8,166,560

Table E.22 (continued)
Bay Area Regional Trips by Trip Purpose and Travel Mode

Trip Purpose Travel Mode	2035-RRF	2035-RRF + Pricing	2035-RRF + Land Use	2035-RRF +Pricing + Land Use
Home-Based Shop (Other)				
Drive Alone	3,384,464	3,336,422	3,332,247	3,280,202
Shared Ride 2	1,852,080	1,809,072	1,816,129	1,772,390
Shared Ride 3+	1,048,827	1,023,290	990,028	965,527
Transit	360,222	407,173	448,732	498,944
Bicycle	46,017	51,816	46,952	52,790
Walk	650,837	714,674	740,575	804,810
Total	7,342,447	7,342,447	7,374,663	7,374,663
Home-Based Social/Recreation				
Drive Alone	1,137,914	968,758	1,122,246	956,520
Shared Ride 2	930,674	761,755	931,906	762,555
Shared Ride 3+	740,911	608,323	723,727	594,196
Transit	124,797	238,975	156,899	273,790
Bicycle	94,026	185,788	92,837	182,032
Walk	334,545	599,268	346,172	604,694
Total	3,362,867	3,362,867	3,373,787	3,373,787
Non-Home-Based				
Vehicle Driver	5,416,578	4,569,004	5,399,656	4,561,456
Vehicle Passenger	1,254,221	1,056,274	1,248,484	1,052,998
Transit	225,584	407,743	244,649	431,660
Bicycle	73,581	173,885	75,121	175,631
Walk	1,058,624	1,821,682	1,103,708	1,849,873
Total	8,028,588	8,028,588	8,071,618	8,071,618
Home-Based Grade School				
Vehicle Passenger	910,766	518,294	896,885	513,864
Transit	80,181	132,337	83,608	135,961
Bicycle	59,920	132,248	58,996	129,720
Walk	366,458	634,446	357,843	617,787
Total	1,417,325	1,417,325	1,397,332	1,397,332
Home-Based High School				
Vehicle Driver	92,683	82,533	90,153	79,978
Vehicle Passenger	286,094	225,012	270,588	213,603
Transit	84,638	126,052	96,198	134,345
Bicycle	27,512	34,153	26,443	32,766
Walk	113,274	136,451	109,282	131,972
Total	604,201	604,201	592,664	592,664
Home-Based College				
Vehicle Driver	325,633	304,533	320,335	297,210
Vehicle Passenger	101,078	91,352	97,272	89,579
Transit	65,311	86,124	76,378	96,904
Bicycle	33,822	39,841	35,341	41,509
Walk	50,493	54,487	61,781	65,905
Total	576,337	576,337	591,107	591,107

Table E.22 (continued)
Bay Area Regional Trips by Trip Purpose and Travel Mode

Trip Purpose Travel Mode	2035-RRF	2035-RRF + Pricing	2035-RRF + Land Use	2035-RRF +Pricing + Land Use
Home-Based School, TOTAL				
Vehicle Driver	418,316	387,066	410,488	377,188
Vehicle Passenger	1,297,938	834,658	1,264,745	817,046
Transit	230,130	344,513	256,184	367,210
Bicycle	121,254	206,242	120,780	203,995
Walk	530,225	825,384	528,906	815,664
Total	2,597,863	2,597,863	2,581,103	2,581,103
Grand Total, All Trip Purposes				
Drive Alone	9,792,786	9,093,102	9,910,743	9,221,214
Shared Ride 2	3,595,920	3,503,428	3,581,287	3,489,163
Shared Ride 3+	2,087,120	2,021,429	1,992,392	1,920,728
Vehicle Driver	5,834,894	4,956,070	5,810,144	4,938,644
Vehicle Passenger	2,552,159	1,890,932	2,513,229	1,870,044
Transit	1,965,164	2,622,179	2,106,211	2,758,914
Bicycle	443,341	756,642	488,621	803,462
Walk	2,836,909	4,264,511	3,165,104	4,565,562
Total	29,108,293	29,108,293	29,567,731	29,567,731
Computed Veh. Driv.	18,021,960	16,378,437	18,080,785	16,453,219
Computed Veh. Occ.	1.324	1.311	1.317	1.303

Table E.22 (continued)
Bay Area Regional Trips by Trip Purpose and Travel Mode

Trip Purpose Travel Mode	2035-FPI	2035-FPI + Pricing	2035-FPI + Land Use	2035-FPI +Pricing + Land Use	2035-FPI + Pricing + Land Use + Telecomm
Home-Based Work, Income Quartile 1 (< $25,000)					
Drive Alone	220,982	198,497	223,092	202,758	183,711
Shared Ride 2	50,062	52,997	48,016	50,617	45,733
Shared Ride 3+	20,916	25,688	21,820	25,880	23,258
Transit	61,208	70,208	70,453	77,872	70,161
Bicycle	10,941	12,686	17,684	20,006	17,945
Walk	41,797	45,830	65,076	69,008	61,990
Total	405,906	405,906	446,141	446,141	402,797
Home-Based Work, Income Quartile 2 ($25000 - $45000)					
Drive Alone	742,266	670,405	766,129	698,899	631,298
Shared Ride 2	136,993	152,480	140,320	155,404	140,030
Shared Ride 3+	56,814	74,080	52,428	66,234	59,508
Transit	148,031	174,792	157,515	181,222	162,661
Bicycle	20,413	24,884	31,360	37,380	33,486
Walk	57,159	65,035	98,239	106,852	95,986
Total	1,161,676	1,161,676	1,245,991	1,245,991	1,122,970
Home-Based Work, Income Quartile 3 ($45000 - $75000)					
Drive Alone	1,647,424	1,502,223	1,699,239	1,563,419	1,410,997
Shared Ride 2	263,101	302,786	264,888	305,552	274,906
Shared Ride 3+	94,739	125,360	83,061	109,408	98,075
Transit	270,390	324,017	238,597	283,884	254,113
Bicycle	33,543	42,747	42,913	53,272	47,685
Walk	74,596	86,660	116,957	130,120	116,945
Total	2,383,793	2,383,793	2,445,655	2,445,655	2,202,720
Home-Based Work, Income Quartile 4 (> $75000)					
Drive Alone	2,730,341	2,502,844	2,829,901	2,604,559	2,350,684
Shared Ride 2	386,974	454,018	398,973	467,178	419,835
Shared Ride 3+	134,603	179,821	128,106	169,518	151,889
Transit	436,476	518,840	439,996	518,366	463,418
Bicycle	45,258	60,423	63,425	81,205	72,684
Walk	91,501	109,207	168,372	187,947	168,905
Total	3,825,153	3,825,153	4,028,773	4,028,773	3,627,416
Home-Based Work, TOTAL					
Drive Alone	5,341,013	4,873,969	5,518,361	5,069,635	4,576,690
Shared Ride 2	837,130	962,281	852,197	978,751	880,504
Shared Ride 3+	307,072	404,949	285,415	371,040	332,730
Transit	916,105	1,087,857	906,561	1,061,344	950,353
Bicycle	110,155	140,740	155,382	191,863	171,800
Walk	265,053	306,732	448,644	493,927	443,826
Total	7,776,528	7,776,528	8,166,560	8,166,560	7,355,903

Table E.22 (continued)
Bay Area Regional Trips by Trip Purpose and Travel Mode

Trip Purpose Travel Mode	2035-FPI	2035-FPI + Pricing	2035-FPI + Land Use	2035-FPI +Pricing + Land Use	2035-FPI + Pricing + Land Use + Telecomm
Home-Based Shop (Other)					
Drive Alone	3,403,391	3,356,632	3,350,093	3,299,345	3,299,972
Shared Ride 2	1,865,212	1,822,056	1,826,784	1,784,957	1,784,511
Shared Ride 3+	1,055,641	1,030,539	994,929	972,141	972,101
Transit	322,966	366,051	414,171	459,117	459,235
Bicycle	46,035	51,834	46,972	52,822	52,762
Walk	649,202	715,335	741,714	806,281	806,082
Total	7,342,447	7,342,447	7,374,663	7,374,663	7,374,663
Home-Based Social/Recreation					
Drive Alone	1,141,814	974,742	1,125,946	962,485	962,604
Shared Ride 2	937,329	773,260	938,209	773,990	774,218
Shared Ride 3+	744,717	617,323	726,836	603,192	604,184
Transit	110,262	209,628	142,039	243,530	243,036
Bicycle	93,864	185,593	92,767	181,907	181,246
Walk	334,881	602,321	347,990	608,683	608,499
Total	3,362,867	3,362,867	3,373,787	3,373,787	3,373,787
Non-Home-Based					
Vehicle Driver	5,437,128	4,608,909	5,420,004	4,603,420	4,604,489
Vehicle Passenger	1,259,004	1,065,602	1,253,350	1,062,797	1,063,051
Transit	201,460	351,913	216,772	372,233	372,207
Bicycle	73,291	173,686	74,960	175,602	174,751
Walk	1,057,705	1,828,478	1,106,532	1,857,566	1,857,120
Total	8,028,588	8,028,588	8,071,618	8,071,618	8,071,618
Home-Based Grade School					
Vehicle Passenger	921,901	531,334	905,150	526,623	530,152
Transit	66,883	115,714	73,476	118,929	118,871
Bicycle	60,195	131,436	59,092	128,945	126,764
Walk	368,346	638,841	359,614	622,835	621,545
Total	1,417,325	1,417,325	1,397,332	1,397,332	1,397,332
Home-Based High School					
Vehicle Driver	93,243	83,206	90,548	80,725	80,752
Vehicle Passenger	290,972	230,335	273,653	218,904	219,480
Transit	78,831	119,802	92,405	127,925	127,541
Bicycle	27,585	34,097	26,499	32,777	32,709
Walk	113,570	136,761	109,559	132,333	132,182
Total	604,201	604,201	592,664	592,664	592,664
Home-Based College					
Vehicle Driver	332,453	312,014	326,491	304,541	305,412
Vehicle Passenger	102,862	93,628	97,882	91,423	91,046
Transit	56,731	76,527	69,568	87,539	87,423
Bicycle	33,833	39,657	35,301	41,425	41,190
Walk	50,458	54,511	61,865	66,179	66,036
Total	576,337	576,337	591,107	591,107	591,107

Table E.22 (continued)
Bay Area Regional Trips by Trip Purpose and Travel Mode

Trip Purpose Travel Mode	2035-FPI	2035-FPI + Pricing	2035-FPI + Land Use	2035-FPI +Pricing + Land Use	2035-FPI + Pricing + Land Use + Telecomm
Home-Based School, TOTAL					
Vehicle Driver	425,696	395,220	417,039	385,266	386,164
Vehicle Passenger	1,315,735	855,297	1,276,685	836,950	840,678
Transit	202,445	312,043	235,449	334,393	333,835
Bicycle	121,613	205,190	120,892	203,147	200,663
Walk	532,374	830,113	531,038	821,347	819,763
Total	2,597,863	2,597,863	2,581,103	2,581,103	2,581,103
Grand Total, All Trip Purposes					
Drive Alone	9,886,218	9,205,343	9,994,400	9,331,465	8,839,266
Shared Ride 2	3,639,671	3,557,597	3,617,190	3,537,698	3,439,233
Shared Ride 3+	2,107,430	2,052,811	2,007,180	1,946,373	1,909,015
Vehicle Driver	5,862,824	5,004,129	5,837,043	4,988,686	4,990,653
Vehicle Passenger	2,574,739	1,920,899	2,530,035	1,899,747	1,903,729
Transit	1,753,238	2,327,492	1,914,992	2,470,617	2,358,666
Bicycle	444,958	757,043	490,973	805,341	781,222
Walk	2,839,215	4,282,979	3,175,918	4,587,804	4,535,290
Total	29,108,293	29,108,293	29,567,731	29,567,731	28,757,074
Computed Veh. Driv.	18,171,000	16,574,788	18,213,518	16,645,107	16,094,968
Computed Veh. Occ.	1.325	1.312	1.317	1.304	1.310

Table E.23
Share of Bay Area Regional Trips by Trip Purpose and Travel Mode

Trip Purpose Travel Mode	2006 Base Year	2035 Baseline	2035 Base + Pricing	2035 Base + Land Use	2035 Base +Pricing + Land Use
Home-Based Work, Income Quartile 1 (< $25,000)					
Drive Alone	58.5%	54.2%	48.8%	49.9%	45.3%
Shared Ride 2	11.6%	12.3%	12.9%	10.8%	11.4%
Shared Ride 3+	4.4%	5.2%	6.3%	4.9%	5.8%
Transit	14.1%	15.3%	17.4%	15.8%	17.5%
Bicycle	2.3%	2.7%	3.2%	4.0%	4.5%
Walk	9.0%	10.3%	11.5%	14.6%	15.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Home-Based Work, Income Quartile 2 ($25000 - $45000)					
Drive Alone	68.0%	63.7%	57.6%	61.4%	55.9%
Shared Ride 2	11.3%	11.8%	13.1%	11.3%	12.5%
Shared Ride 3+	4.1%	4.9%	6.3%	4.2%	5.4%
Transit	11.2%	13.0%	15.2%	12.7%	14.6%
Bicycle	1.3%	1.8%	2.2%	2.5%	3.0%
Walk	4.0%	4.9%	5.7%	7.9%	8.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Home-Based Work, Income Quartile 3 ($45000 - $75000)					
Drive Alone	72.4%	68.9%	62.8%	69.4%	63.7%
Shared Ride 2	10.6%	11.0%	12.7%	10.9%	12.6%
Shared Ride 3+	3.6%	4.0%	5.3%	3.4%	4.5%
Transit	9.7%	11.5%	13.8%	9.8%	11.7%
Bicycle	1.0%	1.4%	1.8%	1.8%	2.2%
Walk	2.6%	3.1%	3.7%	4.8%	5.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Home-Based Work, Income Quartile 4 (> $75000)					
Drive Alone	74.4%	71.2%	65.1%	70.1%	64.4%
Shared Ride 2	9.8%	10.1%	11.9%	9.9%	11.7%
Shared Ride 3+	3.3%	3.5%	4.7%	3.2%	4.2%
Transit	9.6%	11.6%	13.7%	11.0%	13.0%
Bicycle	0.9%	1.2%	1.6%	1.6%	2.0%
Walk	2.0%	2.4%	2.9%	4.2%	4.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Home-Based Work, TOTAL					
Drive Alone	71.0%	68.5%	62.4%	67.5%	61.8%
Shared Ride 2	10.5%	10.8%	12.4%	10.5%	12.0%
Shared Ride 3+	3.7%	4.0%	5.2%	3.5%	4.6%
Transit	10.4%	12.0%	14.2%	11.1%	13.1%
Bicycle	1.2%	1.4%	1.8%	1.9%	2.4%
Walk	3.3%	3.4%	4.0%	5.5%	6.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Table E.23 (continued)
Share of Bay Area Regional Trips by Trip Purpose and Travel Mode

Trip Purpose Travel Mode	2006 Base Year	2035 Baseline	2035 Base + Pricing	2035 Base + Land Use	2035 Base +Pricing + Land Use
Home-Based Shop (Other)					
Drive Alone	46.5%	46.3%	45.7%	45.4%	44.7%
Shared Ride 2	25.8%	25.4%	24.8%	24.8%	24.2%
Shared Ride 3+	15.0%	14.4%	14.0%	13.5%	13.2%
Transit	3.7%	4.4%	5.0%	5.6%	6.2%
Bicycle	0.6%	0.6%	0.7%	0.6%	0.7%
Walk	8.4%	8.9%	9.8%	10.1%	11.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Home-Based Social/Recreation					
Drive Alone	34.3%	33.9%	29.0%	33.3%	28.5%
Shared Ride 2	26.8%	27.8%	23.0%	27.8%	22.9%
Shared Ride 3+	22.6%	22.1%	18.3%	21.6%	17.8%
Transit	2.9%	3.3%	6.3%	4.2%	7.2%
Bicycle	3.4%	2.8%	5.6%	2.8%	5.4%
Walk	10.0%	10.0%	17.9%	10.3%	18.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Non-Home-Based					
Vehicle Driver	68.1%	67.7%	57.4%	67.1%	57.0%
Vehicle Passenger	15.6%	15.7%	13.3%	15.5%	13.2%
Transit	2.5%	2.5%	4.4%	2.7%	4.6%
Bicycle	1.0%	0.9%	2.2%	0.9%	2.2%
Walk	12.9%	13.2%	22.8%	13.7%	23.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Home-Based Grade School					
Vehicle Passenger	59.8%	64.6%	36.9%	64.5%	37.1%
Transit	5.4%	4.9%	8.1%	5.2%	8.5%
Bicycle	5.3%	4.3%	9.6%	4.3%	9.6%
Walk	29.5%	26.2%	45.4%	25.9%	44.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Home-Based High School					
Vehicle Driver	15.3%	15.4%	13.8%	15.3%	13.6%
Vehicle Passenger	49.2%	47.8%	37.8%	46.1%	36.7%
Transit	11.2%	13.4%	20.0%	15.6%	21.7%
Bicycle	4.8%	4.6%	5.7%	4.5%	5.6%
Walk	19.5%	18.8%	22.7%	18.5%	22.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Home-Based College					
Vehicle Driver	59.1%	57.3%	54.1%	55.0%	51.5%
Vehicle Passenger	16.5%	17.8%	16.1%	16.7%	15.4%
Transit	10.3%	10.2%	13.3%	11.8%	14.8%
Bicycle	5.8%	5.9%	7.0%	6.0%	7.1%
Walk	8.4%	8.8%	9.5%	10.5%	11.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Table E.23 (continued)
Share of Bay Area Regional Trips by Trip Purpose and Travel Mode

Trip Purpose Travel Mode	2006 Base Year	2035 Baseline	2035 Base + Pricing	2035 Base + Land Use	2035 Base +Pricing + Land Use
Home-Based School, TOTAL					
Vehicle Driver	16.7%	16.3%	15.2%	16.1%	14.9%
Vehicle Passenger	47.7%	50.3%	32.5%	49.4%	32.0%
Transit	7.8%	8.1%	12.1%	9.1%	13.0%
Bicycle	5.3%	4.7%	8.1%	4.7%	8.1%
Walk	22.5%	20.6%	32.1%	20.7%	32.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Grand Total, All Trip Purposes					
Drive Alone	33.1%	33.9%	31.6%	33.8%	31.5%
Shared Ride 2	12.6%	12.5%	12.2%	12.3%	12.0%
Shared Ride 3+	7.6%	7.2%	7.0%	6.8%	6.6%
Vehicle Driver	20.0%	20.1%	17.2%	19.7%	16.9%
Vehicle Passenger	9.5%	8.8%	6.6%	8.5%	6.4%
Transit	5.3%	6.1%	8.0%	6.5%	8.4%
Bicycle	1.7%	1.5%	2.6%	1.7%	2.8%
Walk	10.2%	9.8%	14.8%	10.8%	15.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Vehicle Driver	61.6%	62.3%	56.9%	61.6%	56.2%
Vehicle Passenger	20.2%	19.2%	16.7%	18.6%	16.1%

Table E.23 (continued)
Share of Bay Area Regional Trips by Trip Purpose and Travel Mode

Trip Purpose Travel Mode	2035 HOT/Exp	2035 HOT/Exp + Pricing	2035 HOT/Exp + Land Use	2035 HOT/Exp + Pricing + Land Use	035 HOT/Exp + Pricing + Land Use + Telecomm
Home-Based Work, Income Quartile 1 (< $25,000)					
Drive Alone	53.7%	47.7%	49.4%	44.5%	44.7%
Shared Ride 2	10.8%	11.1%	9.8%	10.0%	10.1%
Shared Ride 3+	5.6%	7.3%	4.9%	6.0%	5.9%
Transit	17.3%	19.7%	17.8%	19.9%	19.9%
Bicycle	2.6%	3.0%	3.8%	4.3%	4.3%
Walk	10.1%	11.1%	14.4%	15.3%	15.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Home-Based Work, Income Quartile 2 ($25000 - $45000)					
Drive Alone	63.0%	56.6%	60.8%	55.1%	55.2%
Shared Ride 2	10.8%	11.8%	10.5%	11.4%	11.5%
Shared Ride 3+	5.2%	7.0%	4.3%	5.6%	5.5%
Transit	14.4%	17.0%	14.2%	16.5%	16.5%
Bicycle	1.7%	2.1%	2.4%	2.9%	2.9%
Walk	4.9%	5.5%	7.8%	8.5%	8.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Home-Based Work, Income Quartile 3 ($45000 - $75000)					
Drive Alone	68.3%	61.9%	68.8%	63.0%	63.1%
Shared Ride 2	10.3%	11.6%	10.3%	11.6%	11.7%
Shared Ride 3+	4.1%	5.7%	3.4%	4.7%	4.6%
Transit	12.8%	15.4%	11.0%	13.3%	13.3%
Bicycle	1.4%	1.8%	1.7%	2.1%	2.1%
Walk	3.1%	3.6%	4.7%	5.3%	5.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Home-Based Work, Income Quartile 4 (> $75000)					
Drive Alone	70.7%	64.4%	69.6%	63.8%	63.9%
Shared Ride 2	9.5%	10.9%	9.4%	10.7%	10.8%
Shared Ride 3+	3.6%	5.0%	3.2%	4.4%	4.3%
Transit	12.7%	15.2%	12.1%	14.5%	14.4%
Bicycle	1.2%	1.6%	1.5%	2.0%	2.0%
Walk	2.4%	2.8%	4.2%	4.6%	4.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Home-Based Work, TOTAL					
Drive Alone	67.9%	61.6%	66.9%	61.1%	61.3%
Shared Ride 2	10.0%	11.3%	9.9%	11.1%	11.1%
Shared Ride 3+	4.1%	5.6%	3.5%	4.7%	4.7%
Transit	13.2%	15.8%	12.4%	14.7%	14.7%
Bicycle	1.4%	1.8%	1.9%	2.3%	2.3%
Walk	3.4%	3.9%	5.4%	6.0%	6.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Table E.23 (continued)
Share of Bay Area Regional Trips by Trip Purpose and Travel Mode

Trip Purpose Travel Mode	2035 HOT/Exp	2035 HOT/Exp + Pricing	2035 HOT/Exp + Land Use	2035 HOT/Exp + Pricing + Land Use	035 HOT/Exp + Pricing + Land Use + Telecomm
Home-Based Shop (Other)					
Drive Alone	46.0%	45.3%	45.1%	44.5%	44.6%
Shared Ride 2	24.7%	24.2%	24.2%	23.7%	23.7%
Shared Ride 3+	14.7%	14.4%	13.7%	13.4%	13.4%
Transit	5.1%	5.8%	6.3%	6.8%	6.8%
Bicycle	0.6%	0.7%	0.6%	0.7%	0.7%
Walk	8.8%	9.7%	10.0%	10.8%	10.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Home-Based Social/Recreation					
Drive Alone	33.8%	28.6%	33.2%	28.3%	28.3%
Shared Ride 2	27.3%	22.0%	27.3%	21.9%	21.9%
Shared Ride 3+	22.2%	18.5%	21.6%	17.9%	17.8%
Transit	4.0%	7.7%	4.9%	8.6%	8.6%
Bicycle	2.8%	5.5%	2.7%	5.4%	5.3%
Walk	10.0%	17.8%	10.3%	17.9%	17.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Non-Home-Based					
Vehicle Driver	67.2%	56.4%	66.6%	56.0%	56.0%
Vehicle Passenger	15.6%	13.0%	15.4%	12.9%	12.9%
Transit	3.1%	5.8%	3.4%	6.1%	6.1%
Bicycle	0.9%	2.1%	0.9%	2.2%	2.1%
Walk	13.2%	22.6%	13.7%	22.9%	22.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Home-Based Grade School					
Vehicle Passenger	63.9%	35.6%	63.7%	35.7%	36.0%
Transit	5.9%	10.0%	6.3%	10.4%	10.4%
Bicycle	4.3%	9.5%	4.3%	9.5%	9.3%
Walk	25.9%	44.9%	25.8%	44.4%	44.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Home-Based High School					
Vehicle Driver	15.3%	13.7%	15.2%	13.3%	13.4%
Vehicle Passenger	47.0%	36.1%	45.3%	35.2%	35.3%
Transit	14.3%	21.9%	16.5%	23.5%	23.4%
Bicycle	4.6%	5.7%	4.5%	5.6%	5.6%
Walk	18.8%	22.6%	18.5%	22.4%	22.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Home-Based College					
Vehicle Driver	57.1%	53.4%	54.6%	50.9%	50.9%
Vehicle Passenger	16.3%	14.3%	15.5%	13.8%	13.8%
Transit	12.0%	15.9%	13.5%	17.2%	17.2%
Bicycle	5.9%	6.9%	6.0%	7.0%	7.0%
Walk	8.8%	9.5%	10.5%	11.1%	11.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Table E.23 (continued)
Share of Bay Area Regional Trips by Trip Purpose and Travel Mode

Trip Purpose Travel Mode	2035 HOT/Exp	2035 HOT/Exp + Pricing	2035 HOT/Exp + Land Use	2035 HOT/Exp + Pricing + Land Use	035 HOT/Exp + Pricing + Land Use + Telecomm
Home-Based School, TOTAL					
Vehicle Driver	16.2%	15.0%	16.0%	14.7%	14.7%
Vehicle Passenger	49.4%	31.0%	48.4%	30.6%	30.8%
Transit	9.2%	14.1%	10.3%	15.0%	15.0%
Bicycle	4.7%	8.0%	4.7%	8.0%	7.9%
Walk	20.4%	31.8%	20.6%	31.7%	31.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Grand Total, All Trip Purposes					
Drive Alone	33.7%	31.2%	33.5%	31.2%	30.4%
Shared Ride 2	12.1%	11.6%	11.9%	11.5%	11.5%
Shared Ride 3+	7.4%	7.3%	6.9%	6.7%	6.7%
Vehicle Driver	20.0%	16.9%	19.6%	16.6%	17.0%
Vehicle Passenger	8.7%	6.4%	8.4%	6.2%	6.4%
Transit	7.0%	9.4%	7.4%	9.7%	9.6%
Bicycle	1.5%	2.6%	1.6%	2.7%	2.7%
Walk	9.7%	14.6%	10.7%	15.4%	15.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Vehicle Driver	61.8%	56.0%	61.0%	55.5%	55.1%
Vehicle Passenger	18.9%	16.3%	18.3%	15.8%	16.0%

Table E.23 (continued)
Share of Bay Area Regional Trips by Trip Purpose and Travel Mode

Trip Purpose Travel Mode	2035-RRF	2035-RRF + Pricing	2035-RRF + Land Use	2035-RRF +Pricing + Land Use
Home-Based Work, Income Quartile 1 (< $25,000)				
Drive Alone	53.5%	47.9%	49.4%	44.6%
Shared Ride 2	11.6%	12.2%	10.2%	10.8%
Shared Ride 3+	4.9%	6.0%	4.7%	5.5%
Transit	17.4%	19.9%	17.5%	19.5%
Bicycle	2.6%	3.0%	3.8%	4.3%
Walk	10.0%	11.0%	14.4%	15.3%
Total	100.0%	100.0%	100.0%	100.0%
Home-Based Work, Income Quartile 2 ($25000 - $45000)				
Drive Alone	63.0%	56.8%	60.8%	55.2%
Shared Ride 2	11.4%	12.7%	10.9%	12.1%
Shared Ride 3+	4.7%	6.1%	4.1%	5.2%
Transit	14.3%	16.8%	13.9%	16.1%
Bicycle	1.7%	2.1%	2.5%	2.9%
Walk	4.9%	5.5%	7.8%	8.5%
Total	100.0%	100.0%	100.0%	100.0%
Home-Based Work, Income Quartile 3 ($45000 - $75000)				
Drive Alone	68.2%	61.9%	68.8%	62.9%
Shared Ride 2	10.7%	12.3%	10.6%	12.2%
Shared Ride 3+	3.9%	5.1%	3.3%	4.4%
Transit	12.7%	15.3%	10.8%	13.1%
Bicycle	1.4%	1.8%	1.7%	2.1%
Walk	3.1%	3.6%	4.8%	5.3%
Total	100.0%	100.0%	100.0%	100.0%
Home-Based Work, Income Quartile 4 (> $75000)				
Drive Alone	70.5%	64.3%	69.4%	63.5%
Shared Ride 2	9.9%	11.6%	9.7%	11.3%
Shared Ride 3+	3.4%	4.5%	3.1%	4.1%
Transit	12.7%	15.2%	12.0%	14.4%
Bicycle	1.2%	1.6%	1.6%	2.0%
Walk	2.4%	2.8%	4.2%	4.6%
Total	100.0%	100.0%	100.0%	100.0%
Home-Based Work, TOTAL				
Drive Alone	67.8%	61.6%	66.8%	61.0%
Shared Ride 2	10.5%	12.0%	10.2%	11.7%
Shared Ride 3+	3.8%	5.0%	3.4%	4.4%
Transit	13.2%	15.7%	12.2%	14.5%
Bicycle	1.4%	1.8%	1.9%	2.3%
Walk	3.4%	3.9%	5.5%	6.0%
Total	100.0%	100.0%	100.0%	100.0%

Table E.23 (continued)
Share of Bay Area Regional Trips by Trip Purpose and Travel Mode

Trip Purpose Travel Mode	2035-RRF	2035-RRF + Pricing	2035-RRF + Land Use	2035-RRF +Pricing + Land Use
Home-Based Shop (Other)				
Drive Alone	46.1%	45.4%	45.2%	44.5%
Shared Ride 2	25.2%	24.6%	24.6%	24.0%
Shared Ride 3+	14.3%	13.9%	13.4%	13.1%
Transit	4.9%	5.5%	6.1%	6.8%
Bicycle	0.6%	0.7%	0.6%	0.7%
Walk	8.9%	9.7%	10.0%	10.9%
Total	100.0%	100.0%	100.0%	100.0%
Home-Based Social/Recreation				
Drive Alone	33.8%	28.8%	33.3%	28.4%
Shared Ride 2	27.7%	22.7%	27.6%	22.6%
Shared Ride 3+	22.0%	18.1%	21.5%	17.6%
Transit	3.7%	7.1%	4.7%	8.1%
Bicycle	2.8%	5.5%	2.8%	5.4%
Walk	9.9%	17.8%	10.3%	17.9%
Total	100.0%	100.0%	100.0%	100.0%
Non-Home-Based				
Vehicle Driver	67.5%	56.9%	66.9%	56.5%
Vehicle Passenger	15.6%	13.2%	15.5%	13.0%
Transit	2.8%	5.1%	3.0%	5.3%
Bicycle	0.9%	2.2%	0.9%	2.2%
Walk	13.2%	22.7%	13.7%	22.9%
Total	100.0%	100.0%	100.0%	100.0%
Home-Based Grade School				
Vehicle Passenger	64.3%	36.6%	64.2%	36.8%
Transit	5.7%	9.3%	6.0%	9.7%
Bicycle	4.2%	9.3%	4.2%	9.3%
Walk	25.9%	44.8%	25.6%	44.2%
Total	100.0%	100.0%	100.0%	100.0%
Home-Based High School				
Vehicle Driver	15.3%	13.7%	15.2%	13.5%
Vehicle Passenger	47.4%	37.2%	45.7%	36.0%
Transit	14.0%	20.9%	16.2%	22.7%
Bicycle	4.6%	5.7%	4.5%	5.5%
Walk	18.7%	22.6%	18.4%	22.3%
Total	100.0%	100.0%	100.0%	100.0%
Home-Based College				
Vehicle Driver	56.5%	52.8%	54.2%	50.3%
Vehicle Passenger	17.5%	15.9%	16.5%	15.2%
Transit	11.3%	14.9%	12.9%	16.4%
Bicycle	5.9%	6.9%	6.0%	7.0%
Walk	8.8%	9.5%	10.5%	11.1%
Total	100.0%	100.0%	100.0%	100.0%

Table E.23 (continued)
Share of Bay Area Regional Trips by Trip Purpose and Travel Mode

Trip Purpose Travel Mode	2035-RRF	2035-RRF + Pricing	2035-RRF + Land Use	2035-RRF +Pricing + Land Use
Home-Based School, TOTAL				
Vehicle Driver	16.1%	14.9%	15.9%	14.6%
Vehicle Passenger	50.0%	32.1%	49.0%	31.7%
Transit	8.9%	13.3%	9.9%	14.2%
Bicycle	4.7%	7.9%	4.7%	7.9%
Walk	20.4%	31.8%	20.5%	31.6%
Total	100.0%	100.0%	100.0%	100.0%
Grand Total, All Trip Purposes				
Drive Alone	33.6%	31.2%	33.5%	31.2%
Shared Ride 2	12.4%	12.0%	12.1%	11.8%
Shared Ride 3+	7.2%	6.9%	6.7%	6.5%
Vehicle Driver	20.0%	17.0%	19.7%	16.7%
Vehicle Passenger	8.8%	6.5%	8.5%	6.3%
Transit	6.8%	9.0%	7.1%	9.3%
Bicycle	1.5%	2.6%	1.7%	2.7%
Walk	9.7%	14.7%	10.7%	15.4%
Total	100.0%	100.0%	100.0%	100.0%
Vehicle Driver	61.9%	56.3%	61.2%	55.6%
Vehicle Passenger	19.0%	16.5%	18.4%	15.9%

Table E.23 (continued)
Share of Bay Area Regional Trips by Trip Purpose and Travel Mode

Trip Purpose Travel Mode	2035-FPI	2035-FPI + Pricing	2035-FPI + Land Use	2035-FPI +Pricing + Land Use	2035-FPI + Pricing + Land Use + Telecomm
Home-Based Work, Income Quartile 1 (< $25,000)					
Drive Alone	54.4%	48.9%	50.0%	45.4%	45.6%
Shared Ride 2	12.3%	13.1%	10.8%	11.3%	11.4%
Shared Ride 3+	5.2%	6.3%	4.9%	5.8%	5.8%
Transit	15.1%	17.3%	15.8%	17.5%	17.4%
Bicycle	2.7%	3.1%	4.0%	4.5%	4.5%
Walk	10.3%	11.3%	14.6%	15.5%	15.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Home-Based Work, Income Quartile 2 ($25000 - $45000)					
Drive Alone	63.9%	57.7%	61.5%	56.1%	56.2%
Shared Ride 2	11.8%	13.1%	11.3%	12.5%	12.5%
Shared Ride 3+	4.9%	6.4%	4.2%	5.3%	5.3%
Transit	12.7%	15.0%	12.6%	14.5%	14.5%
Bicycle	1.8%	2.1%	2.5%	3.0%	3.0%
Walk	4.9%	5.6%	7.9%	8.6%	8.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Home-Based Work, Income Quartile 3 ($45000 - $75000)					
Drive Alone	69.1%	63.0%	69.5%	63.9%	64.1%
Shared Ride 2	11.0%	12.7%	10.8%	12.5%	12.5%
Shared Ride 3+	4.0%	5.3%	3.4%	4.5%	4.5%
Transit	11.3%	13.6%	9.8%	11.6%	11.5%
Bicycle	1.4%	1.8%	1.8%	2.2%	2.2%
Walk	3.1%	3.6%	4.8%	5.3%	5.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Home-Based Work, Income Quartile 4 (> $75000)					
Drive Alone	71.4%	65.4%	70.2%	64.6%	64.8%
Shared Ride 2	10.1%	11.9%	9.9%	11.6%	11.6%
Shared Ride 3+	3.5%	4.7%	3.2%	4.2%	4.2%
Transit	11.4%	13.6%	10.9%	12.9%	12.8%
Bicycle	1.2%	1.6%	1.6%	2.0%	2.0%
Walk	2.4%	2.9%	4.2%	4.7%	4.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Home-Based Work, TOTAL					
Drive Alone	68.7%	62.7%	67.6%	62.1%	62.2%
Shared Ride 2	10.8%	12.4%	10.4%	12.0%	12.0%
Shared Ride 3+	3.9%	5.2%	3.5%	4.5%	4.5%
Transit	11.8%	14.0%	11.1%	13.0%	12.9%
Bicycle	1.4%	1.8%	1.9%	2.3%	2.3%
Walk	3.4%	3.9%	5.5%	6.0%	6.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Table E.23 (continued)
Share of Bay Area Regional Trips by Trip Purpose and Travel Mode

Trip Purpose Travel Mode	2035-FPI	2035-FPI + Pricing	2035-FPI + Land Use	2035-FPI +Pricing + Land Use	2035-FPI + Pricing + Land Use + Telecomm
Home-Based Shop (Other)					
Drive Alone	46.4%	45.7%	45.4%	44.7%	44.7%
Shared Ride 2	25.4%	24.8%	24.8%	24.2%	24.2%
Shared Ride 3+	14.4%	14.0%	13.5%	13.2%	13.2%
Transit	4.4%	5.0%	5.6%	6.2%	6.2%
Bicycle	0.6%	0.7%	0.6%	0.7%	0.7%
Walk	8.8%	9.7%	10.1%	10.9%	10.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Home-Based Social/Recreation					
Drive Alone	34.0%	29.0%	33.4%	28.5%	28.5%
Shared Ride 2	27.9%	23.0%	27.8%	22.9%	22.9%
Shared Ride 3+	22.1%	18.4%	21.5%	17.9%	17.9%
Transit	3.3%	6.2%	4.2%	7.2%	7.2%
Bicycle	2.8%	5.5%	2.7%	5.4%	5.4%
Walk	10.0%	17.9%	10.3%	18.0%	18.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Non-Home-Based					
Vehicle Driver	67.7%	57.4%	67.1%	57.0%	57.0%
Vehicle Passenger	15.7%	13.3%	15.5%	13.2%	13.2%
Transit	2.5%	4.4%	2.7%	4.6%	4.6%
Bicycle	0.9%	2.2%	0.9%	2.2%	2.2%
Walk	13.2%	22.8%	13.7%	23.0%	23.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Home-Based Grade School					
Vehicle Passenger	65.0%	37.5%	64.8%	37.7%	37.9%
Transit	4.7%	8.2%	5.3%	8.5%	8.5%
Bicycle	4.2%	9.3%	4.2%	9.2%	9.1%
Walk	26.0%	45.1%	25.7%	44.6%	44.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Home-Based High School					
Vehicle Driver	15.4%	13.8%	15.3%	13.6%	13.6%
Vehicle Passenger	48.2%	38.1%	46.2%	36.9%	37.0%
Transit	13.0%	19.8%	15.6%	21.6%	21.5%
Bicycle	4.6%	5.6%	4.5%	5.5%	5.5%
Walk	18.8%	22.6%	18.5%	22.3%	22.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Home-Based College					
Vehicle Driver	57.7%	54.1%	55.2%	51.5%	51.7%
Vehicle Passenger	17.8%	16.2%	16.6%	15.5%	15.4%
Transit	9.8%	13.3%	11.8%	14.8%	14.8%
Bicycle	5.9%	6.9%	6.0%	7.0%	7.0%
Walk	8.8%	9.5%	10.5%	11.2%	11.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Table E.23 (continued)
Share of Bay Area Regional Trips by Trip Purpose and Travel Mode

Trip Purpose Travel Mode	2035-FPI	2035-FPI + Pricing	2035-FPI + Land Use	2035-FPI +Pricing + Land Use	2035-FPI + Pricing + Land Use + Telecomm
Home-Based School, TOTAL					
Vehicle Driver	16.4%	15.2%	16.2%	14.9%	15.0%
Vehicle Passenger	50.6%	32.9%	49.5%	32.4%	32.6%
Transit	7.8%	12.0%	9.1%	13.0%	12.9%
Bicycle	4.7%	7.9%	4.7%	7.9%	7.8%
Walk	20.5%	32.0%	20.6%	31.8%	31.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Grand Total, All Trip Purposes					
Drive Alone	34.0%	31.6%	33.8%	31.6%	30.7%
Shared Ride 2	12.5%	12.2%	12.2%	12.0%	12.0%
Shared Ride 3+	7.2%	7.1%	6.8%	6.6%	6.6%
Vehicle Driver	20.1%	17.2%	19.7%	16.9%	17.4%
Vehicle Passenger	8.8%	6.6%	8.6%	6.4%	6.6%
Transit	6.0%	8.0%	6.5%	8.4%	8.2%
Bicycle	1.5%	2.6%	1.7%	2.7%	2.7%
Walk	9.8%	14.7%	10.7%	15.5%	15.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Vehicle Driver	62.4%	56.9%	61.6%	56.3%	56.0%
Vehicle Passenger	19.2%	16.7%	18.5%	16.2%	16.4%

Table F.1
Regional Vehicle Miles of Travel (VMT) by Alternative

	Baseline Alternative	Freeway Performance Initiative (FPI) Alternative	HOT/Express/ Local Bus Alternative	Regional Rail + Ferry Alternative
"Base" Assumptions	177,671,400 *30.9%*	178,995,200 *31.9%*	175,550,700 *29.4%*	175,324,600 *29.2%*
Pricing Sensitivity	169,234,800 *24.7%*	170,484,000 *25.6%*	165,744,800 *22.1%*	166,155,600 *22.4%*
Land Use Sensitivity	171,059,200 *26.0%*	172,262,200 *26.9%*	169,568,300 *24.9%*	169,405,500 *24.8%*
Combined Pricing + Land Use Sensitivity	163,805,000 *20.7%*	164,907,200 *21.5%*	161,297,700 *18.8%*	161,229,300 *18.8%*
Combined Pricing + Land Use + Telecommuting Sensitivity	-- --	159,771,100 *17.7%*	156,351,700 *15.2%*	-- --
Year 2006 Base	135,716,400 *0.0%*			

Upper entry is average weekday daily vehicle miles of travel (all trip purposes combined).
Lower entry is percent difference relative to 2006 base year.

Table F.2
Regional Vehicle Miles of Travel (VMT) per Capita by Alternative

	Baseline Alternative	Freeway Performance Initiative (FPI) Alternative	HOT/Express/ Local Bus Alternative	Regional Rail + Ferry Alternative
"Base" Assumptions	19.7 *3.8%*	19.8 *4.5%*	19.4 *2.5%*	19.4 *2.4%*
Pricing Sensitivity	18.7 *-1.2%*	18.9 *-0.4%*	18.4 *-3.2%*	18.4 *-3.0%*
Land Use Sensitivity	18.7 *-1.2%*	18.9 *-0.5%*	18.6 *-2.0%*	18.6 *-2.1%*
Combined Pricing + Land Use Sensitivity	17.9 *-5.4%*	18.1 *-4.7%*	17.7 *-6.8%*	17.7 *-6.9%*
Combined Pricing + Land Use + Telecommuting Sensitivity	-- --	17.5 *-7.7%*	17.1 *-9.7%*	-- --
Year 2006 Base	19.0 *0.0%*			

Upper entry is average weekday daily vehicle miles of travel per capita (all trip purposes combined).
Lower entry is percent difference relative to 2006 base year.

Total Population	
2006 Base Year	7,159,400
2035 Baseline	9,031,900
2035 Land Use Alternative	9,131,300

Table F.3
Regional Home-Based Work Vehicle Miles of Travel (VMT) by Alternative

	Baseline Alternative	Freeway Performance Initiative (FPI) Alternative	HOT/Express/ Local Bus Alternative	Regional Rail + Ferry Alternative
"Base" Assumptions	67,252,200 *48.8%*	68,000,300 *50.5%*	65,863,200 *45.8%*	65,443,000 *44.8%*
Pricing Sensitivity	60,667,900 *34.3%*	61,457,800 *36.0%*	58,526,600 *29.5%*	58,501,500 *29.5%*
Land Use Sensitivity	63,050,800 *39.5%*	63,668,400 *40.9%*	62,054,000 *37.3%*	61,725,300 *36.6%*
Combined Pricing + Land Use Sensitivity	57,802,000 *27.9%*	58,508,800 *29.5%*	56,165,700 *24.3%*	55,961,000 *23.9%*
Combined Pricing + Land Use + Telecommuting Sensitivity	-- --	53,186,200 *17.7%*	51,055,300 *13.0%*	-- --
Year 2006 Base	45,184,100 *0.0%*			

Upper entry is average weekday daily vehicle miles of travel (home-based work trips, only).
Lower entry is percent difference relative to 2006 base year.

Table F.4
AM Peak Period Vehicle Hours of Recurring Delay (VHD) by Alternative

	Baseline Alternative	Freeway Performance Initiative (FPI) Alternative	HOT/Express/ Local Bus Alternative	Regional Rail + Ferry Alternative
"Base" Assumptions	423,800 *236.1%*	323,100 *156.2%*	369,300 *192.9%*	377,800 *199.6%*
Pricing Sensitivity	294,400 *133.5%*	223,800 *77.5%*	257,500 *104.2%*	266,200 *111.1%*
Land Use Sensitivity	257,600 *104.3%*	191,300 *51.7%*	228,600 *81.3%*	241,600 *91.6%*
Combined Pricing + Land Use Sensitivity	200,500 *59.0%*	145,600 *15.5%*	165,200 *31.0%*	177,700 *40.9%*
Combined Pricing + Land Use + Telecommuting Sensitivity	-- --	111,000 *-12.0%*	161,800 *28.3%*	-- --
Year 2006 Base	126,100 *0.0%*			

Upper entry is average weekday AM peak period (0600-1000) vehicle hours of delay (VHD).
Lower entry is percent difference relative to 2006 base year.

Note: includes only recurrent delay (excludes non-recurrent freeway delay).

Table F.5
Average Weekday Daily Vehicle Hours of Recurring Delay (VHD) by Alternative

	Baseline Alternative	Freeway Performance Initiative (FPI) Alternative	HOT/Express/ Local Bus Alternative	Regional Rail + Ferry Alternative
"Base" Assumptions	1,216,300 *236.1%*	927,300 *156.2%*	1,059,900 *192.9%*	1,084,300 *199.6%*
Pricing Sensitivity	844,900 *133.5%*	642,300 *77.5%*	739,000 *104.2%*	764,000 *111.1%*
Land Use Sensitivity	739,300 *104.3%*	549,000 *51.7%*	656,100 *81.3%*	693,400 *91.6%*
Combined Pricing + Land Use Sensitivity	575,400 *59.0%*	417,900 *15.5%*	474,100 *31.0%*	510,000 *40.9%*
Combined Pricing + Land Use + Telecommuting Sensitivity	-- --	318,600 *-12.0%*	464,400 *28.3%*	-- --
Year 2006 Base	361,900 *0.0%*			

Upper entry is average weekday daily vehicle hours of delay (VHD).
Lower entry is percent difference relative to 2006 base year.

Note: includes only recurrent delay (excludes non-recurrent freeway delay).

Table F.6
AM Peak Period Vehicle Hours of Non-Recurring Freeway Delay (VHD) by Alternative

	Baseline Alternative	Freeway Performance Initiative (FPI) Alternative	HOT/Express/ Local Bus Alternative	Regional Rail + Ferry Alternative
"Base" Assumptions	211,500 *162.4%*	27,300 *-66.1%*	160,700 *99.4%*	194,700 *141.6%*
Pricing Sensitivity	162,700 *101.9%*	20,200 *-74.9%*	114,000 *41.4%*	145,800 *80.9%*
Land Use Sensitivity	147,400 *82.9%*	17,500 *-78.3%*	102,300 *26.9%*	136,900 *69.9%*
Combined Pricing + Land Use Sensitivity	110,100 *36.6%*	12,600 *-84.4%*	70,100 *-13.0%*	99,100 *23.0%*
Combined Pricing + Land Use + Telecommuting Sensitivity	-- --	9,100 *-88.7%*	65,000 *-19.4%*	-- --
Year 2006 Base	80,600 *0.0%*			

Upper entry is average weekday AM peak period (0600-1000) vehicle hours of non-recurring freeway delay.
Lower entry is percent difference relative to 2006 base year.

Table F.7
Average Weekday Daily Vehicle Hours of Total Delay (VHD) by Alternative

	Baseline Alternative	Freeway Performance Initiative (FPI) Alternative	HOT/Express/ Local Bus Alternative	Regional Rail + Ferry Alternative
"Base" Assumptions	1,639,300 *213.4%*	981,900 *87.7%*	1,381,300 *164.1%*	1,473,700 *181.7%*
Pricing Sensitivity	1,170,300 *123.7%*	682,700 *30.5%*	967,000 *84.9%*	1,055,600 *101.8%*
Land Use Sensitivity	1,034,100 *97.7%*	584,000 *11.6%*	860,700 *64.5%*	967,200 *84.9%*
Combined Pricing + Land Use Sensitivity	795,600 *52.1%*	443,100 *-15.3%*	614,300 *17.4%*	708,200 *35.4%*
Combined Pricing + Land Use + Telecommuting Sensitivity	-- --	336,800 *-35.6%*	594,400 *13.6%*	-- --
Year 2006 Base	523,100 *0.0%*			

Upper entry is average weekday daily vehicle hours of delay, including non-recurring freeway delay.
Lower entry is percent difference relative to 2006 base year.

Table F.8
Annual Vehicle Hours of Total Delay (VHD) per Capita by Alternative

	Baseline Alternative	Freeway Performance Initiative (FPI) Alternative	HOT/Express/ Local Bus Alternative	Regional Rail + Ferry Alternative
"Base" Assumptions	66.2 *148.4%*	39.7 *48.8%*	55.8 *109.3%*	59.6 *123.3%*
Pricing Sensitivity	47.3 *77.3%*	27.6 *3.5%*	39.1 *46.5%*	42.7 *60.0%*
Land Use Sensitivity	41.3 *55.0%*	23.3 *-12.5%*	34.4 *29.0%*	38.7 *45.0%*
Combined Pricing + Land Use Sensitivity	31.8 *19.2%*	17.7 *-33.6%*	24.6 *-7.9%*	28.3 *6.1%*
Combined Pricing + Land Use + Telecommuting Sensitivity	-- --	13.5 *-49.5%*	23.8 *-10.9%*	-- --
Year 2006 Base	26.7 *0.0%*			

Upper entry is annual vehicle hours of delay per capita, including non-recurring freeway delay.
Lower entry is percent difference relative to 2006 base year.

Total Population	
2006 Base Year	7,159,400
2035 Baseline	9,031,900
2035 Land Use Alternative	9,131,300

Table F.9
AM Peak Period (0600-1000) Traffic Characteristics by County by Alternative

1. Year 2006 Base

County	Vehicle Miles of Travel	Vehicle Hours of Travel	Vehicle Hours of Delay	Average Speed
Alameda	8,211,878	242,128	39,288	33.9
Contra Costa	5,027,505	147,603	23,043	34.1
Marin	1,526,792	40,852	5,702	37.4
Napa	629,274	18,363	1,047	34.3
San Francisco	1,704,746	61,699	4,897	27.6
San Mateo	3,895,104	100,815	7,672	38.6
Santa Clara	8,338,905	249,578	30,691	33.4
Solano	2,805,719	67,698	7,289	41.4
Sonoma	2,284,225	69,146	6,503	33.0
Bay Area	34,424,148	997,880	126,133	34.5

2. Year 2035 Baseline

County	Vehicle Miles of Travel	Vehicle Hours of Travel	Vehicle Hours of Delay	Average Speed
Alameda	11,038,290	383,019	96,930	28.8
Contra Costa	7,047,965	249,157	67,303	28.3
Marin	2,133,335	68,176	20,069	31.3
Napa	1,005,884	36,673	8,911	27.4
San Francisco	2,265,584	103,254	26,230	21.9
San Mateo	5,552,659	187,909	51,226	29.5
Santa Clara	12,139,002	429,043	93,361	28.3
Solano	4,068,505	125,635	34,841	32.4
Sonoma	3,293,072	115,854	24,957	28.4
Bay Area	48,544,295	1,698,721	423,828	28.6

3. Year 2035 + Pricing

County	Vehicle Miles of Travel	Vehicle Hours of Travel	Vehicle Hours of Delay	Average Speed
Alameda	10,337,557	328,859	66,619	31.4
Contra Costa	6,665,050	216,375	45,871	30.8
Marin	2,018,897	59,304	14,071	34.0
Napa	927,835	31,394	5,896	29.6
San Francisco	2,031,038	82,829	14,787	24.5
San Mateo	5,137,481	154,650	29,305	33.2
Santa Clara	11,530,294	384,539	69,950	30.0
Solano	3,919,732	115,139	28,533	34.0
Sonoma	3,157,494	105,926	19,389	29.8
Bay Area	45,725,378	1,479,016	294,423	30.9

Table F.9 (continued)
AM Peak Period (0600-1000) Traffic Characteristics by County by Alternative

4. Year 2035 + Land Use

County	Vehicle Miles of Travel	Vehicle Hours of Travel	Vehicle Hours of Delay	Average Speed
Alameda	10,621,115	343,398	69,852	30.9
Contra Costa	6,405,518	201,101	37,829	31.9
Marin	1,940,416	55,026	9,840	35.3
Napa	811,457	25,106	2,712	32.3
San Francisco	2,183,817	95,113	21,264	23.0
San Mateo	5,399,729	158,164	25,071	34.1
Santa Clara	11,521,059	389,615	70,783	29.6
Solano	3,218,541	80,620	9,031	39.9
Sonoma	2,926,880	93,040	11,240	31.5
Bay Area	45,028,532	1,441,183	257,622	31.2

5. Year 2035 + Land Use + Pricing

County	Vehicle Miles of Travel	Vehicle Hours of Travel	Vehicle Hours of Delay	Average Speed
Alameda	10,028,149	313,196	59,020	32.0
Contra Costa	6,095,370	182,198	27,872	33.5
Marin	1,845,205	50,325	7,301	36.7
Napa	774,586	23,200	1,876	33.4
San Francisco	1,974,707	76,269	10,214	25.9
San Mateo	5,072,560	143,487	18,417	35.4
Santa Clara	11,048,857	361,538	58,741	30.6
Solano	3,132,273	77,773	8,289	40.3
Sonoma	2,816,493	87,195	8,790	32.3
Bay Area	42,788,201	1,315,182	200,520	32.5

6. Year 2035 - Freeway Performance Initiative (FPI)

County	Vehicle Miles of Travel	Vehicle Hours of Travel	Vehicle Hours of Delay	Average Speed
Alameda	11,087,213	352,336	71,693	31.5
Contra Costa	7,076,217	230,813	52,635	30.7
Marin	2,143,436	63,181	15,787	33.9
Napa	974,246	32,734	6,328	29.8
San Francisco	2,271,759	100,232	24,051	22.7
San Mateo	5,556,162	167,437	32,844	33.2
Santa Clara	12,162,324	401,584	74,157	30.3
Solano	4,062,975	114,533	26,200	35.5
Sonoma	3,291,039	108,071	19,400	30.5
Bay Area	48,625,373	1,570,924	323,095	31.0

Table F.9 (continued)
AM Peak Period (0600-1000) Traffic Characteristics by County by Alternative

7. Year 2035 - Freeway Performance Initiative (FPI) + Pricing

County	Vehicle Miles of Travel	Vehicle Hours of Travel	Vehicle Hours of Delay	Average Speed
Alameda	10,428,279	307,352	48,736	33.9
Contra Costa	6,701,319	203,572	36,136	32.9
Marin	2,037,141	56,624	11,617	36.0
Napa	905,551	28,804	4,300	31.4
San Francisco	2,033,864	77,803	10,283	26.1
San Mateo	5,135,260	145,182	21,269	35.4
Santa Clara	11,578,570	364,549	56,364	31.8
Solano	3,920,460	104,884	20,167	37.4
Sonoma	3,159,090	99,523	14,951	31.7
Bay Area	45,899,535	1,388,292	223,823	33.1

8. Year 2035 - Freeway Performance Initiative (FPI) + Land Use

County	Vehicle Miles of Travel	Vehicle Hours of Travel	Vehicle Hours of Delay	Average Speed
Alameda	10,676,348	321,786	52,241	33.2
Contra Costa	6,433,010	189,776	29,170	33.9
Marin	1,948,924	52,792	7,963	36.9
Napa	808,243	23,917	1,977	33.8
San Francisco	2,189,996	84,351	10,979	26.0
San Mateo	5,390,332	151,310	19,106	35.6
Santa Clara	11,582,258	367,737	54,441	31.5
Solano	3,220,811	77,104	6,567	41.8
Sonoma	2,940,847	89,248	8,842	33.0
Bay Area	45,190,771	1,358,022	191,287	33.3

9. Year 2035 - Freeway Performance Initiative (FPI) + Land Use + Pricing

County	Vehicle Miles of Travel	Vehicle Hours of Travel	Vehicle Hours of Delay	Average Speed
Alameda	10,099,733	289,466	38,199	34.9
Contra Costa	6,144,355	176,386	23,519	34.8
Marin	1,865,567	48,565	5,571	38.4
Napa	776,026	22,676	1,607	34.2
San Francisco	1,978,448	71,953	6,111	27.5
San Mateo	5,081,489	138,579	13,723	36.7
Santa Clara	11,147,989	343,380	44,088	32.5
Solano	3,135,318	74,334	5,799	42.2
Sonoma	2,846,686	84,636	7,028	33.6
Bay Area	43,075,612	1,249,976	145,645	34.5

Table F.9 (continued)
AM Peak Period (0600-1000) Traffic Characteristics by County by Alternative

10. Year 2035 - Freeway Performance Initiative (FPI) + Land Use + Pricing + Telecommute

County	Vehicle Miles of Travel	Vehicle Hours of Travel	Vehicle Hours of Delay	Average Speed
Alameda	9,499,083	263,099	28,930	36.1
Contra Costa	5,761,612	159,875	17,071	36.0
Marin	1,736,939	43,926	3,967	39.5
Napa	727,256	20,905	1,158	34.8
San Francisco	1,858,973	65,885	4,147	28.2
San Mateo	4,756,588	127,727	10,947	37.2
Santa Clara	10,474,463	313,252	34,066	33.4
Solano	2,996,905	70,345	5,097	42.6
Sonoma	2,667,191	78,111	5,657	34.1
Bay Area	40,479,011	1,143,124	111,039	35.4

11. Year 2035 - HOT & Local/Express Bus

County	Vehicle Miles of Travel	Vehicle Hours of Travel	Vehicle Hours of Delay	Average Speed
Alameda	10,878,842	356,695	93,416	30.5
Contra Costa	6,987,542	233,286	56,730	30.0
Marin	2,097,059	63,424	16,651	33.1
Napa	944,271	32,581	6,367	29.0
San Francisco	2,214,982	99,039	24,201	22.4
San Mateo	5,456,848	168,278	35,412	32.4
Santa Clara	11,986,023	410,690	87,809	29.2
Solano	4,081,553	115,094	26,263	35.5
Sonoma	3,278,688	111,430	22,439	29.4
Bay Area	47,925,808	1,590,518	369,290	30.1

12. Year 2035 - HOT & Local/Express Bus + Pricing

County	Vehicle Miles of Travel	Vehicle Hours of Travel	Vehicle Hours of Delay	Average Speed
Alameda	10,019,971	301,530	63,136	33.2
Contra Costa	6,513,882	204,451	40,605	31.9
Marin	1,964,468	55,230	11,309	35.6
Napa	870,810	28,267	4,143	30.8
San Francisco	1,960,955	77,722	12,172	25.2
San Mateo	4,935,196	139,260	19,236	35.4
Santa Clara	11,332,018	371,868	69,418	30.5
Solano	3,897,489	104,837	20,464	37.2
Sonoma	3,117,277	101,252	16,987	30.8
Bay Area	44,612,068	1,384,415	257,469	32.2

Table F.9 (continued)
AM Peak Period (0600-1000) Traffic Characteristics by County by Alternative

13. Year 2035 - HOT & Local/Express Bus + Land Use

County	Vehicle Miles of Travel	Vehicle Hours of Travel	Vehicle Hours of Delay	Average Speed
Alameda	10,453,041	320,522	66,420	32.6
Contra Costa	6,384,337	193,984	34,540	32.9
Marin	1,918,127	51,112	6,486	37.5
Napa	786,693	23,894	2,077	32.9
San Francisco	2,151,247	85,053	12,668	25.3
San Mateo	5,272,511	149,557	19,514	35.3
Santa Clara	11,511,558	382,838	71,979	30.1
Solano	3,245,926	77,881	6,244	41.7
Sonoma	2,939,118	89,118	8,659	33.0
Bay Area	44,662,559	1,373,959	228,587	32.5

14. Year 2035 - HOT & Local/Express Bus + Land Use + Pricing

County	Vehicle Miles of Travel	Vehicle Hours of Travel	Vehicle Hours of Delay	Average Speed
Alameda	9,693,183	279,694	46,786	34.7
Contra Costa	5,986,975	173,527	24,379	34.5
Marin	1,797,631	46,536	4,474	38.6
Napa	754,676	22,621	1,698	33.4
San Francisco	1,923,165	71,231	7,213	27.0
San Mateo	4,889,794	134,527	13,631	36.3
Santa Clara	10,929,123	347,693	54,825	31.4
Solano	3,116,517	73,723	4,990	42.3
Sonoma	2,815,813	84,357	7,199	33.4
Bay Area	41,906,877	1,233,910	165,195	34.0

15. Year 2035 - HOT & Local/Express Bus + Land Use + Pricing + Telecommute

County	Vehicle Miles of Travel	Vehicle Hours of Travel	Vehicle Hours of Delay	Average Speed
Alameda	9,145,325	274,816	44,514	33.3
Contra Costa	5,596,794	162,738	21,294	34.4
Marin	1,677,796	44,622	5,430	37.6
Napa	727,899	21,500	1,445	33.9
San Francisco	1,798,581	65,668	5,787	27.4
San Mateo	4,659,301	126,907	12,048	36.7
Santa Clara	10,199,636	337,770	56,717	30.2
Solano	2,961,604	71,347	6,083	41.5
Sonoma	2,628,868	81,746	8,469	32.2
Bay Area	39,395,804	1,187,114	161,787	33.2

Table F.9 (continued)
AM Peak Period (0600-1000) Traffic Characteristics by County by Alternative

16. Year 2035 - Regional Rail & Ferry

County	Vehicle Miles of Travel	Vehicle Hours of Travel	Vehicle Hours of Delay	Average Speed
Alameda	10,809,353	366,276	86,941	29.5
Contra Costa	6,953,255	245,712	66,381	28.3
Marin	2,117,596	66,285	18,633	31.9
Napa	992,868	35,237	7,838	28.2
San Francisco	2,199,714	98,108	23,388	22.4
San Mateo	5,331,083	164,771	33,722	32.4
Santa Clara	11,884,783	410,164	82,332	29.0
Solano	4,037,921	124,312	34,349	32.5
Sonoma	3,285,222	114,849	24,212	28.6
Bay Area	47,611,796	1,625,715	377,796	29.3

17. Year 2035 - Regional Rail & Ferry + Pricing

County	Vehicle Miles of Travel	Vehicle Hours of Travel	Vehicle Hours of Delay	Average Speed
Alameda	10,105,983	314,031	58,139	32.2
Contra Costa	6,544,518	214,338	46,762	30.5
Marin	1,990,655	58,002	13,364	34.3
Napa	918,555	30,716	5,472	29.9
San Francisco	1,960,910	76,927	11,194	25.5
San Mateo	4,892,942	140,261	20,284	34.9
Santa Clara	11,267,977	371,540	63,975	30.3
Solano	3,902,060	113,932	27,603	34.2
Sonoma	3,164,197	106,203	19,437	29.8
Bay Area	44,747,797	1,425,950	266,230	31.4

18. Year 2035 - Regional Rail & Ferry + Land Use

County	Vehicle Miles of Travel	Vehicle Hours of Travel	Vehicle Hours of Delay	Average Speed
Alameda	10,447,778	335,516	66,889	31.1
Contra Costa	6,335,371	196,605	35,129	32.2
Marin	1,910,038	54,267	9,732	35.2
Napa	809,693	24,586	2,281	32.9
San Francisco	2,131,928	85,692	13,505	24.9
San Mateo	5,231,860	151,899	22,071	34.4
Santa Clara	11,345,643	384,201	70,282	29.5
Solano	3,206,038	81,837	10,584	39.2
Sonoma	2,914,565	92,590	11,089	31.5
Bay Area	44,332,915	1,407,193	241,562	31.5

Table F.9 (continued)
AM Peak Period (0600-1000) Traffic Characteristics by County by Alternative

19. Year 2035 - Regional Rail & Ferry + Land Use + Pricing

County	Vehicle Miles of Travel	Vehicle Hours of Travel	Vehicle Hours of Delay	Average Speed
Alameda	9,760,010	296,136	49,404	33.0
Contra Costa	5,998,025	179,172	27,430	33.5
Marin	1,823,358	49,640	7,078	36.7
Napa	774,344	23,186	1,872	33.4
San Francisco	1,912,768	73,237	9,077	26.1
San Mateo	4,869,623	135,527	14,424	35.9
Santa Clara	10,807,982	347,983	51,954	31.1
Solano	3,112,205	76,595	7,538	40.6
Sonoma	2,814,824	87,231	8,905	32.3
Bay Area	41,873,138	1,268,708	177,683	33.0

Table G.1
Regional On-Road Carbon Dioxide (CO_2) Emissions per Weekday by Alternative

	Baseline Alternative	Freeway Performance Initiative (FPI) Alternative	HOT/Express/ Local Bus Alternative	Regional Rail + Ferry Alternative
"Base" Assumptions	101.4 *95.2%*	92.4 *77.7%*	97.0 *86.6%*	99.1 *90.7%*
Pricing Sensitivity	93.4 *79.8%*	86.7 *66.8%*	88.9 *71.2%*	91.0 *75.1%*
Land Use Sensitivity	93.4 *79.7%*	86.8 *67.1%*	90.5 *74.2%*	91.8 *76.6%*
Combined Pricing + Land Use Sensitivity	87.2 *67.8%*	82.5 *58.7%*	84.2 *62.0%*	85.4 *64.4%*
Combined Pricing + Land Use + Telecommuting Sensitivity	-- --	79.6 *53.2%*	80.9 *55.7%*	-- --
Year 1990 Base	86.6 *66.7%*			
Target (40% Less Than 1990)	52.0 *0.0%*			

Upper entry is average weekday daily estimate of on-road mobile source emissions for carbon dioxide, in thousands of tons per day (1000-tpd).

Lower entry is percent difference with respect to CO_2 Target (40% Less Than 1990 Levels)

Table G.2
Regional On-Road Particulate 2.5 ($PM_{2.5}$) Emissions per Weekday by Alternative

	Baseline Alternative	Freeway Performance Initiative (FPI) Alternative	HOT/Express/ Local Bus Alternative	Regional Rail + Ferry Alternative
"Base" Assumptions	26.2 *45.6%*	25.8 *43.3%*	25.7 *42.8%*	25.8 *43.3%*
Pricing Sensitivity	24.7 *37.2%*	24.5 *36.1%*	24.1 *33.9%*	24.3 *34.8%*
Land Use Sensitivity	24.9 *38.3%*	24.6 *36.9%*	24.6 *36.7%*	24.6 *36.6%*
Combined Pricing + Land Use Sensitivity	23.7 *31.7%*	23.6 *31.0%*	23.3 *29.4%*	23.3 *29.6%*
Combined Pricing + Land Use + Telecommuting Sensitivity	-- --	22.8 *26.7%*	22.6 *25.6%*	-- --
Year 2006 Base	20.0 *11.1%*			
Target (10% Less Than 2006)	18.0 *0.0%*			

Upper entry is average weekday daily estimate of on-road mobile source emissions for $PM_{2.5}$, in tons per day (tpd). The "2.5" refers to particulate matter size, in microns.
Lower entry is percent difference with respect to $PM_{2.5}$ Target (10% Less Than 2006 Levels)

Table G.3
Regional On-Road Particulate 10 (PM_{10}) Emissions per Weekday by Alternative

	Baseline Alternative	Freeway Performance Initiative (FPI) Alternative	HOT/Express/ Local Bus Alternative	Regional Rail + Ferry Alternative
"Base" Assumptions	95.6 *152.4%*	95.2 *151.5%*	94.1 *148.7%*	94.2 *148.9%*
Pricing Sensitivity	90.8 *139.9%*	90.8 *139.7%*	88.9 *134.9%*	89.3 *135.8%*
Land Use Sensitivity	91.5 *141.8%*	91.4 *141.5%*	90.8 *139.9%*	90.4 *138.9%*
Combined Pricing + Land Use Sensitivity	87.6 *131.4%*	87.7 *131.5%*	86.4 *128.2%*	86.2 *127.7%*
Combined Pricing + Land Use + Telecommuting Sensitivity	-- --	85.0 *124.4%*	83.8 *121.4%*	-- --
Year 2006 Base	68.8 *81.8%*			
Target (45% Less Than 2006)	37.9 *0.0%*			

Upper entry is average weekday daily estimate of on-road mobile source emissions for PM_{10}, in tons per day (tpd). The "10" refers to particulate matter size, in microns.
Lower entry is percent difference with respect to PM_{10} Target (45% Less Than 2006 Levels)

Table G.4
Regional Average Weekday Daily Fuel Consumption by Alternative

	Baseline Alternative	Freeway Performance Initiative (FPI) Alternative	HOT/Express/ Local Bus Alternative	Regional Rail + Ferry Alternative
"Base" Assumptions	12,747.08 *50.4%*	12,234.38 *44.4%*	12,348.40 *45.7%*	12,490.10 *47.4%*
Pricing Sensitivity	11,845.10 *39.8%*	11,498.81 *35.7%*	11,443.00 *35.0%*	11,577.71 *36.6%*
Land Use Sensitivity	11,897.79 *40.4%*	11,530.08 *36.0%*	11,685.75 *37.9%*	11,721.51 *38.3%*
Combined Pricing + Land Use Sensitivity	11,213.05 *32.3%*	10,965.86 *29.4%*	10,960.95 *29.3%*	11,014.19 *30.0%*
Combined Pricing + Land Use + Telecommuting Sensitivity	-- --	10,590.78 *25.0%*	10,583.01 *24.9%*	-- --
Year 2006 Base	8,785.80 *3.7%*			
Year 1990 Base	8,475.46 *0.0%*			

Upper entry is average weekday daily estimate of on-road fuel consumptions in thousands of gallons per day (1000-gpd).

Lower entry is percent difference with respect to 1990 fuel consumption levels.

Table G.5
Components of $PM_{2.5}$ and PM_{10} On-Road Mobile Source Emissions

$PM_{2.5}$ Emissions (tons per day)

		Year 2006		Year 2035	
Vehicle Type	Component	Base	% of Total	Baseline	% of Total
Passenger Vehicles	Tire Wear	0.30	1.5%	0.45	1.7%
Passenger Vehicles	Brake Wear	0.87	4.4%	1.29	4.9%
Passenger Vehicles	Engine Exhaust	2.25	11.3%	4.52	17.3%
Passenger Vehicles	Re-Entrained Road Dust	12.46	62.7%	17.83	68.2%
Heavy Truck	Tire Wear	0.02	0.1%	0.02	0.1%
Heavy Truck	Brake Wear	0.04	0.2%	0.04	0.1%
Heavy Truck	Engine Exhaust	2.09	10.5%	0.27	1.0%
Heavy Truck	Re-Entrained Road Dust	0.22	1.1%	0.26	1.0%
Other Vehicles	Tire Wear	0.04	0.2%	0.05	0.2%
Other Vehicles	Brake Wear	0.03	0.1%	0.03	0.1%
Other Vehicles	Engine Exhaust	0.99	5.0%	0.61	2.3%
Other Vehicles	Re-Entrained Road Dust	0.57	2.9%	0.79	3.0%
All	Total	19.88	100.0%	26.16	100.0%

PM_{10} Emissions (tons per day)

		Year 2006		Year 2035	
Vehicle Type	Component	Base	% of Total	Baseline	% of Total
Passenger Vehicles	Tire Wear	1.28	1.9%	1.85	1.9%
Passenger Vehicles	Brake Wear	2.03	3.0%	2.91	3.1%
Passenger Vehicles	Engine Exhaust	2.47	3.6%	4.87	5.1%
Passenger Vehicles	Re-Entrained Road Dust	55.72	81.3%	79.75	83.7%
Heavy Truck	Tire Wear	0.09	0.1%	0.12	0.1%
Heavy Truck	Brake Wear	0.07	0.1%	0.09	0.1%
Heavy Truck	Engine Exhaust	2.29	3.3%	0.30	0.3%
Heavy Truck	Re-Entrained Road Dust	0.98	1.4%	1.17	1.2%
Other Vehicles	Tire Wear	0.02	0.0%	0.04	0.0%
Other Vehicles	Brake Wear	0.01	0.0%	0.03	0.0%
Other Vehicles	Engine Exhaust	1.07	1.6%	0.68	0.7%
Other Vehicles	Re-Entrained Road Dust	2.54	3.7%	3.53	3.7%
All	Total	68.57	100.0%	95.32	100.0%

Passenger Vehicles Includes: Passenger Cars (all weight classes), Light-Duty Trucks 1 (0-3,750 lbs), Light-Duty Trucks 2 (3,751-5,750 lbs), Medium-Duty Trucks (5,751-8,500) and Motorcycles.

Heavy Truck Includes: Heavy-Heavy-Duty Trucks (33,001-60,000 lbs).
Other Vehicles Includes: Light-Heavy-Duty Trucks 1 (8501-10,000 lbs), Light-Heavy-Duty Trucks 2 (10,001-14,000 lbs), Medium-Heavy-Duty Trucks (14,001-33,000 lbs), Urban Buses, School Buses, Other Buses and Motor Homes.

Table G.6
Alternative Fuel Scenarios for Attaining CO_2 Target

		Share of Passenger Fleet, by Technology							
Scenario	Alternative	Gasoline-Powered "Pavley-consistent"	Gasoline-Powered (Pre-MY 2009 Vehicles)	Electric	Hydrogen Fuel Cell	Plug-In Hybrid	Total	Conventional Vehicle Fuel Economy (mpg)	Regional CO_2 Emissions
A	Baseline 2035	87.8%	10.6%	1.6%	0.0%	0.0%	100.0%	**27.7**	101.4
B	HOT/Exp+LU+PR	87.8%	10.6%	1.6%	0.0%	0.0%	100.0%	**27.7**	80.9
C	HOT/Exp+LU+PR	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	**50.1**	52.0
D	HOT/Exp+LU+PR	92.5%	7.5%	0.0%	0.0%	0.0%	100.0%	**54.0**	52.0
E	HOT/Exp+LU+PR	45.0%	0.0%	27.5%	27.5%	0.0%	100.0%	**27.7**	52.0
F	HOT/Exp+LU+PR	70.0%	0.0%	10.0%	10.0%	10.0%	100.0%	**36.9**	52.0
G	HOT/Exp+LU+PR	64.8%	7.5%	9.3%	9.3%	9.3%	100.0%	**40.0**	52.0
Target CO_2 Emissions (40% Less Than 1990 Levels) (1000s of tons/day)									**52.0**

Notes:
"Pavley-consistent" means model year 2009 and later passenger vehicles which achieve the maximum feasible and cost effective reduction of greenhouse gas emissions from motor vehicles as identified in AB 1493 climate change emission standards.

CO_2 emission rates for for Electric and Hydrogen Fuel Cell vehicles are 100% below conventional (non-"Pavley-consistent) vehicles standards and CO_2 emission rates for for Plug-In Hybrids are 81.5% below conventional vehicles standards.

A and B are the standard scenarios, without adjustments for vehicle technology.

C through G are the different scenarios which have been simulated.

Table H.1
Transportation Affordability: Low Income Households
Household Income < $40,000 (2007$)

Total Transportation Costs as Share of Household Income

	Baseline Alternative	Freeway Performance Initiative (FPI) Alternative	HOT/Express/ Local Bus Alternative	Regional Rail + Ferry Alternative
"Base" Assumptions	22.1% *-2.9%*	22.2% *-2.5%*	22.4% *-1.6%*	23.1% *1.4%*
Pricing Sensitivity	37.5% *64.7%*	36.8% *61.6%*	36.6% *60.7%*	38.0% *66.9%*
Land Use Sensitivity	19.5% *-14.4%*	19.5% *-14.4%*	19.8% *-13.0%*	20.1% *-11.7%*
Combined Pricing + Land Use Sensitivity	33.6% *47.6%*	33.1% *45.4%*	33.3% *46.2%*	34.0% *49.3%*
Combined Pricing + Land Use + Telecommuting Sensitivity	-- --	-- --	-- --	-- --
Year 2006 Base	25.3% *11.1%*			
Target (10% Less Than 2006)	*22.8%* *0.0%*			

Upper entry is Total Transportation Costs as Share of Mean Household Income
Lower entry is percent difference with respect to Transportation Affordability Target

Table H.2
Transportation Affordability: Medium-Low Income Households
Household Income $40,000-$70,000 (2007$)

Total Transportation Costs as Share of Household Income

	Baseline Alternative	Freeway Performance Initiative (FPI) Alternative	HOT/Express/ Local Bus Alternative	Regional Rail + Ferry Alternative
"Base" Assumptions	18.5% *8.2%*	18.6% *8.8%*	18.5% *8.2%*	18.7% *9.4%*
Pricing Sensitivity	32.1% *87.7%*	31.5% *84.2%*	31.1% *81.9%*	31.8% *86.0%*
Land Use Sensitivity	16.4% *-4.1%*	16.5% *-3.5%*	16.5% *-3.5%*	16.6% *-2.9%*
Combined Pricing + Land Use Sensitivity	29.5% *72.5%*	29.1% *70.2%*	29.0% *69.6%*	29.3% *71.3%*
Combined Pricing + Land Use + Telecommuting Sensitivity	-- --	-- --	-- --	-- --
Year 2006 Base	19.0% *11.1%*			
Target (10% Less Than 2006)	*17.1%* *0.0%*			

Upper entry is Total Transportation Costs as Share of Mean Household Income
Lower entry is percent difference with respect to Transportation Affordability Target

Table H.3
Transportation Affordability: Low and Medium-Low Income Households
Household Income Less Than $70,000 (2007$)

Total Transportation Costs as Share of Household Income

	Baseline Alternative	Freeway Performance Initiative (FPI) Alternative	HOT/Express/ Local Bus Alternative	Regional Rail + Ferry Alternative
"Base" Assumptions	20.2% *-0.2%*	20.3% *0.3%*	20.3% *0.5%*	20.7% *2.6%*
Pricing Sensitivity	34.6% *71.2%*	33.9% *68.0%*	33.6% *66.5%*	34.7% *71.6%*
Land Use Sensitivity	17.8% *-11.7%*	17.9% *-11.5%*	18.0% *-10.8%*	18.2% *-9.8%*
Combined Pricing + Land Use Sensitivity	31.4% *55.4%*	30.9% *53.2%*	31.0% *53.4%*	31.5% *55.8%*
Combined Pricing + Land Use + Telecommuting Sensitivity	-- --	-- --	-- --	-- --
Year 2006 Base	22.4% *11.1%*			
Target (10% Less Than 2006)	*20.2%* *0.0%*			

Upper entry is Total Transportation Costs as Share of Mean Household Income
Lower entry is percent difference with respect to Transportation Affordability Target

Table H.4
Housing + Transportation Affordability: Low and Medium-Low Income Households
Household Income Less Than $70,000 (2007$)

Total Housing plus Transportation Costs as Share of Household Income

	Baseline Alternative	Freeway Performance Initiative (FPI) Alternative	HOT/Express/ Local Bus Alternative	Regional Rail + Ferry Alternative
"Base" Assumptions	63.4% *4.4%*	63.5% *4.5%*	63.5% *4.6%*	63.9% *5.3%*
Pricing Sensitivity	77.8% *28.2%*	77.1% *27.1%*	76.8% *26.6%*	77.9% *28.3%*
Land Use Sensitivity	57.0% *-6.0%*	57.1% *-6.0%*	57.2% *-5.7%*	57.4% *-5.4%*
Combined Pricing + Land Use Sensitivity	70.6% *16.3%*	70.1% *15.6%*	70.2% *15.6%*	70.7% *16.4%*
Combined Pricing + Land Use + Telecommuting Sensitivity	-- --	-- --	-- --	-- --
Year 2006 Base	67.4% *11.1%*			
Target (10% Less Than 2006)	*60.7%* *0.0%*			

Upper entry is Total Transportation Costs as Share of Mean Household Income
Lower entry is percent difference with respect to Transportation Affordability Target

Housing Costs as Share of Household Income (Low + Medium-Low Income Households)

2006 Base Year	45.0%
2035 Baseline *	43.2%
2035 Land Use Alternative **	39.2%

* Although housing are assumed to rise in proportion with inflation, the number of low-income households falls relative to the number of medium low-income households, resulting in a reduced weighted average housing cost share.

** Assumes direct housing subsidies to low-income households and medium low-income households, totalling 2.1 billion annually.

Table H.5
Components of Transportation Affordability: Baseline Alternatives

Income Level	Year 2006 Base	Year 2035 Baseline	Year 2035 Pricing	Year 2035 Land Use	Year 2035 Land Use + Pricing
a. Total Households					
Low	622,622	532,333	532,333	529,898	529,898
Medium Low	516,176	623,187	623,187	619,877	619,877
Medium High	656,195	910,799	910,799	912,882	912,882
High	810,759	1,226,202	1,226,202	1,267,050	1,267,050
Total	2,605,752	3,292,521	3,292,521	3,329,707	3,329,707
b. Mean Household Income (2007$)					
Low	$22,800	$23,900	$23,900	$23,700	$23,700
Medium-Low	$59,500	$58,500	$58,500	$58,600	$58,600
Medium-High	$98,000	$94,400	$94,400	$94,500	$94,500
High	$221,800	$246,700	$246,700	$247,600	$247,600
Total	$95,200	$133,100	$133,100	$134,800	$134,800
c. Auto Ownership Cost Share of Household Income					
Low	14.2%	12.1%	12.1%	10.9%	10.9%
Medium-Low	11.8%	11.2%	11.2%	10.4%	10.4%
Medium-High	10.0%	10.0%	10.0%	9.8%	9.8%
High	7.0%	6.2%	6.2%	6.1%	6.1%
Total	10.0%	7.5%	7.5%	7.3%	7.3%
d. Auto Operating Cost Share of Household Income					
Low	7.9%	7.0%	21.8%	5.6%	19.2%
Medium-Low	6.3%	6.1%	19.4%	5.0%	17.8%
Medium-High	5.4%	5.4%	17.2%	4.7%	16.2%
High	3.3%	3.0%	9.0%	2.8%	8.6%
Total	5.0%	3.9%	11.8%	3.4%	11.1%
e. Transit Cost Share of Household Income					
Low	3.2%	3.0%	3.6%	3.0%	3.5%
Medium-Low	0.9%	1.2%	1.5%	1.0%	1.3%
Medium-High	0.5%	0.7%	0.9%	0.5%	0.7%
High	0.2%	0.3%	0.4%	0.3%	0.4%
Total	0.6%	0.6%	0.7%	0.5%	0.6%
f. Total Transportation Costs as Share of Household Income					
Low	25.3%	22.1%	37.5%	19.5%	33.6%
Medium-Low	19.0%	18.5%	32.1%	16.4%	29.5%
Medium-High	15.9%	16.1%	28.1%	15.0%	26.7%
High	10.5%	9.5%	15.6%	9.2%	15.1%
Total	15.6%	12.0%	20.0%	11.2%	19.0%

Table H.6
Components of Transportation Affordability: Freeway Performance Initiative (FPI) Alternatives

			Freeway Performance Initiative (FPI)			
Income Level	Year 2006 Base	Year 2035 Baseline	FPI Base	FPI + Pricing	FPI + Land Use	FPI + Land Use + Pricing
a. Total Households						
Low	622,622	532,333	532,333	532,333	529,898	529,898
Medium Low	516,176	623,187	623,187	623,187	619,877	619,877
Medium High	656,195	910,799	910,799	910,799	912,882	912,882
High	810,759	1,226,202	1,226,202	1,226,202	1,267,050	1,267,050
Total	2,605,752	3,292,521	3,292,521	3,292,521	3,329,707	3,329,707
b. Mean Household Income (2007$)						
Low	$22,800	$23,900	$23,900	$23,900	$23,700	$23,700
Medium-Low	$59,500	$58,500	$58,500	$58,500	$58,600	$58,600
Medium-High	$98,000	$94,400	$94,400	$94,400	$94,500	$94,500
High	$221,800	$246,700	$246,700	$246,700	$247,600	$247,600
Total	$95,200	$133,100	$133,100	$133,100	$134,800	$134,800
c. Auto Ownership Cost Share of Household Income						
Low	14.2%	12.1%	12.1%	12.1%	10.9%	10.9%
Medium-Low	11.8%	11.2%	11.2%	11.2%	10.4%	10.4%
Medium-High	10.0%	10.0%	10.0%	10.0%	9.8%	9.8%
High	7.0%	6.2%	6.2%	6.2%	6.1%	6.1%
Total	10.0%	7.5%	7.5%	7.5%	7.3%	7.3%
d. Auto Operating Cost Share of Household Income						
Low	7.9%	7.0%	7.2%	21.1%	5.6%	18.8%
Medium-Low	6.3%	6.1%	6.2%	18.9%	5.1%	17.5%
Medium-High	5.4%	5.4%	5.5%	16.8%	4.7%	16.0%
High	3.3%	3.0%	3.1%	8.8%	2.9%	8.4%
Total	5.0%	3.9%	4.0%	11.5%	3.5%	10.9%
e. Transit Cost Share of Household Income						
Low	3.2%	3.0%	2.9%	3.6%	3.0%	3.4%
Medium-Low	0.9%	1.2%	1.2%	1.4%	1.0%	1.2%
Medium-High	0.5%	0.7%	0.7%	0.9%	0.5%	0.7%
High	0.2%	0.3%	0.3%	0.4%	0.3%	0.4%
Total	0.6%	0.6%	0.6%	0.7%	0.5%	0.6%
f. Total Transportation Costs as Share of Household Income						
Low	25.3%	22.1%	22.2%	36.8%	19.5%	33.1%
Medium-Low	19.0%	18.5%	18.6%	31.5%	16.5%	29.1%
Medium-High	15.9%	16.1%	16.2%	27.7%	15.0%	26.5%
High	10.5%	9.5%	9.6%	15.4%	9.3%	14.9%
Total	15.6%	12.0%	12.1%	19.7%	11.3%	18.8%

Table H.7
Components of Transportation Affordability: HOT + Express/Local Bus Alternatives

Income Level	Year 2006 Base	Year 2035 Baseline	HOT + Express/Local Bus: HOT/Exp Base	HOT/Exp + Pricing	HOT/Exp + Land Use	HOT/Exp + Land Use + Pricing
a. Total Households						
Low	622,622	532,333	532,333	532,333	529,898	529,898
Medium Low	516,176	623,187	623,187	623,187	619,877	619,877
Medium High	656,195	910,799	910,799	910,799	912,882	912,882
High	810,759	1,226,202	1,226,202	1,226,202	1,267,050	1,267,050
Total	2,605,752	3,292,521	3,292,521	3,292,521	3,329,707	3,329,707
b. Mean Household Income (2007$)						
Low	$22,800	$23,900	$23,900	$23,900	$23,700	$23,700
Medium-Low	$59,500	$58,500	$58,500	$58,500	$58,600	$58,600
Medium-High	$98,000	$94,400	$94,400	$94,400	$94,500	$94,500
High	$221,800	$246,700	$246,700	$246,700	$247,600	$247,600
Total	$95,200	$133,100	$133,100	$133,100	$134,800	$134,800
c. Auto Ownership Cost Share of Household Income						
Low	14.2%	12.1%	12.1%	12.1%	10.9%	10.9%
Medium-Low	11.8%	11.2%	11.2%	11.2%	10.4%	10.4%
Medium-High	10.0%	10.0%	10.0%	10.0%	9.8%	9.8%
High	7.0%	6.2%	6.2%	6.2%	6.1%	6.1%
Total	10.0%	7.5%	7.5%	7.5%	7.3%	7.3%
d. Auto Operating Cost Share of Household Income						
Low	7.9%	7.0%	6.8%	20.3%	5.5%	18.4%
Medium-Low	6.3%	6.1%	5.9%	18.3%	4.9%	17.2%
Medium-High	5.4%	5.4%	5.2%	16.5%	4.6%	15.9%
High	3.3%	3.0%	2.9%	8.7%	2.8%	8.4%
Total	5.0%	3.9%	3.7%	11.3%	3.4%	10.8%
e. Transit Cost Share of Household Income						
Low	3.2%	3.0%	3.5%	4.2%	3.4%	4.0%
Medium-Low	0.9%	1.2%	1.4%	1.6%	1.2%	1.4%
Medium-High	0.5%	0.7%	0.8%	1.0%	0.6%	0.8%
High	0.2%	0.3%	0.4%	0.5%	0.3%	0.4%
Total	0.6%	0.6%	0.6%	0.8%	0.5%	0.7%
f. Total Transportation Costs as Share of Household Income						
Low	25.3%	22.1%	22.4%	36.6%	19.8%	33.3%
Medium-Low	19.0%	18.5%	18.5%	31.1%	16.5%	29.0%
Medium-High	15.9%	16.1%	16.0%	27.5%	15.0%	26.5%
High	10.5%	9.5%	9.5%	15.4%	9.2%	14.9%
Total	15.6%	12.0%	11.8%	19.6%	11.2%	18.8%

Table H.8
Components of Transportation Affordability: Regional Rail + Ferry Alternatives

Income Level	Year 2006 Base	Year 2035 Baseline	Regional Rail + Ferry (RRF) RRF Base	RRF + Pricing	RRF + Land Use	RRF + Land Use + Pricing
a. Total Households						
Low	622,622	532,333	532,333	532,333	529,898	529,898
Medium Low	516,176	623,187	623,187	623,187	619,877	619,877
Medium High	656,195	910,799	910,799	910,799	912,882	912,882
High	810,759	1,226,202	1,226,202	1,226,202	1,267,050	1,267,050
Total	2,605,752	3,292,521	3,292,521	3,292,521	3,329,707	3,329,707
b. Mean Household Income (2007$)						
Low	$22,800	$23,900	$23,900	$23,900	$23,700	$23,700
Medium-Low	$59,500	$58,500	$58,500	$58,500	$58,600	$58,600
Medium-High	$98,000	$94,400	$94,400	$94,400	$94,500	$94,500
High	$221,800	$246,700	$246,700	$246,700	$247,600	$247,600
Total	$95,200	$133,100	$133,100	$133,100	$134,800	$134,800
c. Auto Ownership Cost Share of Household Income						
Low	14.2%	12.1%	12.1%	12.1%	10.9%	10.9%
Medium-Low	11.8%	11.2%	11.2%	11.2%	10.4%	10.4%
Medium-High	10.0%	10.0%	10.0%	10.0%	9.8%	9.8%
High	7.0%	6.2%	6.2%	6.2%	6.1%	6.1%
Total	10.0%	7.5%	7.5%	7.5%	7.3%	7.3%
d. Auto Operating Cost Share of Household Income						
Low	7.9%	7.0%	6.7%	20.6%	5.5%	18.6%
Medium-Low	6.3%	6.1%	5.9%	18.6%	4.9%	17.3%
Medium-High	5.4%	5.4%	5.2%	16.5%	4.6%	15.8%
High	3.3%	3.0%	2.9%	8.6%	2.8%	8.3%
Total	5.0%	3.9%	3.7%	11.3%	3.4%	10.7%
e. Transit Cost Share of Household Income						
Low	3.2%	3.0%	4.3%	5.3%	3.7%	4.5%
Medium-Low	0.9%	1.2%	1.6%	2.0%	1.3%	1.6%
Medium-High	0.5%	0.7%	1.0%	1.2%	0.7%	0.9%
High	0.2%	0.3%	0.5%	0.6%	0.4%	0.5%
Total	0.6%	0.6%	0.8%	0.9%	0.6%	0.8%
f. Total Transportation Costs as Share of Household Income						
Low	25.3%	22.1%	23.1%	38.0%	20.1%	34.0%
Medium-Low	19.0%	18.5%	18.7%	31.8%	16.6%	29.3%
Medium-High	15.9%	16.1%	16.2%	27.7%	15.1%	26.5%
High	10.5%	9.5%	9.6%	15.4%	9.3%	14.9%
Total	15.6%	12.0%	12.0%	19.7%	11.3%	18.8%

Table H.9
Auto Ownership Costs & Characteristics by Income Level
San Francisco Bay Area

Household Income Level	Year 2006	Year 2035 Baseline	Year 2035 Land Use Alternative
a. Total Households			
Low	622,622	532,333	529,898
Medium-Low	516,176	623,187	619,877
Medium-High	656,195	910,799	912,882
High	810,759	1,226,202	1,267,050
Total	2,605,752	3,292,521	3,329,707
b. Vehicles Available in Household			
Low	637,938	487,824	433,086
Medium-Low	852,956	960,450	893,036
Medium-High	1,320,227	1,760,741	1,735,742
High	1,782,659	2,642,575	2,678,846
Total	4,593,780	5,851,590	5,740,710
c. Average Number of Vehicles Available in Household			
Low	1.025	0.916	0.817
Medium-Low	1.652	1.541	1.441
Medium-High	2.012	1.933	1.901
High	2.199	2.155	2.114
Total	1.763	1.777	1.724
d. Auto Ownership Costs per Vehicle (based on CEX)			
Low	$3,159	$3,159	$3,159
Medium-Low	$4,250	$4,250	$4,250
Medium-High	$4,870	$4,870	$4,870
High	$7,090	$7,090	$7,090
Total	$5,379	$5,628	$5,442
e. Average Auto Ownership Cost per Household			
Low	$3,237	$2,895	$2,582
Medium-Low	$7,023	$6,550	$6,123
Medium-High	$9,798	$9,415	$9,260
High	$15,589	$15,280	$14,990
Total	$9,482	$10,003	$9,794

Table H.9 (continued)
Auto Ownership Costs & Characteristics by Income Level
San Francisco Bay Area

Household Income Level	Year 2006	Year 2035 Baseline	Year 2035 Land Use Alternative
f. Mean Household Income (2007$)			
Low	$22,800	$23,900	$23,700
Medium-Low	$59,500	$58,500	$58,600
Medium-High	$98,000	$94,400	$94,500
High	$221,800	$246,700	$247,600
Total	$95,200	$133,100	$134,800
g. Auto Ownership Costs as Share of Household Income			
Low	14.2%	12.1%	10.9%
Medium-Low	11.8%	11.2%	10.4%
Medium-High	10.0%	10.0%	9.8%
High	7.0%	6.2%	6.1%
Total	10.0%	7.5%	7.3%

Table H.10
Consumer Expenditure Survey: Transportation Costs by Income Level
U.S. Western Region
Bureau of Labor Statistics, Consumer Expenditure Survey (CEX), 2004/05

Item	Income Level			Total
	$0 to $40,000	$40,000 to $70,000	$70,000 or Greater	
Ownership Costs:				
Vehicle purchases (net outlay):	$1,951	$4,350	$7,722	$4,268
Cars and trucks, new	$848	$2,133	$4,883	$2,369
Cars and trucks, used	$1,091	$2,118	$2,635	$1,808
Other vehicles	$13	$99	$204	$91
Vehicle finance charges	$129	$361	$543	$310
Vehicle insurance	$609	$1,146	$1,484	$1,004
Vehicle rental, leases, licenses, and other charges	$215	$439	$1,005	$506
Total Ownership Costs	**$2,904**	**$6,295**	**$10,754**	**$6,088**
Operating Costs:				
Maintenance and repairs	$488	$855	$1,354	$838
Gasoline and motor oil	$1,220	$2,161	$2,936	$1,966
Total Operating Costs	**$1,708**	**$3,016**	**$4,290**	**$2,804**
Total Ownership and Operating Costs	**$4,612**	**$9,312**	**$15,044**	**$8,891**
Cost Summary per Vehicle:				
Average Number of Vehicles	1.4	2.3	2.9	2.1
Total Ownership Costs per Vehicle	**$2,064**	**$2,683**	**$3,708**	**$2,917**
Total Operating Costs per Vehicle	**$1,214**	**$1,285**	**$1,479**	**$1,344**
Total Ownership and Operating Costs per Vehicle	**$3,278**	**$3,968**	**$5,188**	**$4,261**
Total Ownership Costs as Percent of Expenditures	**10.4%**	**12.9%**	**12.6%**	**12.1%**
Total Operating Costs as Percent of Expenditures	**6.1%**	**6.2%**	**5.0%**	**5.6%**
Total Owning+Operating Cost as Percent of Expenditures	**16.5%**	**19.1%**	**17.6%**	**17.7%**
Total Ownership Costs as Percent of Income	**14.2%**	**11.8%**	**8.4%**	**10.0%**
Total Operating Costs as Percent of Income	**8.3%**	**5.6%**	**3.3%**	**4.6%**
Total Owning+Operating Cost as Percent of Income	**22.5%**	**17.4%**	**11.7%**	**14.6%**
Public Transportation (Intracity Mass Transit + Airfares…)	**$260**	**$512**	**$1,212**	**$606**
Public Transportation as Percent of Expenditures	**0.9%**	**1.0%**	**1.4%**	**1.2%**
Public Transportation as Percent of Income	**1.3%**	**1.0%**	**0.9%**	**1.0%**
Total Transportation as Percent of Income	**23.8%**	**18.3%**	**12.7%**	**15.6%**

Table I.1
Cost Effectiveness of Infrastructure Scenarios
Values in 2007 Constant Dollars; 4% Discout Rate Assumption

1. Infrastructure Scenario Cost Summary (millions)

	Freeway Performance	HOT & Local/Express Bus	Regional Rail & Ferry
Total Capital Cost	$613	$9,477	$64,222
Annualized Capital Cost (4% discount rate)	$45	$697	$3,721
Net Annual O&M Cost	$24	$616	$1,210
Total Annualized Capital and Annual O&M Cost	$69	$1,313	$4,931

2. Cost per quantity reduced, compared to 2035 with no new investments

	No Policy Changes			Combined Pricing and Land Use [1]		
	Freeway Performance	HOT & Local/Express Bus	Regional Rail & Ferry	Freeway Performance	HOT & Local/Express Bus	Regional Rail & Ferry
Environment Principle						
CO_2 (dollars per 1000 tons per year) [2]	$22,000	$813,000	$5,771,000	$11,000	$210,000	$845,000
$PM_{2.5}$ (dollars per ton per year)	$477,000	$7,197,000	$33,776,000	$73,000	$1,241,000	$4,715,000
PM_{10} (dollars per ton per year)	$550,000	$2,540,000	$10,158,000	$25,000	$392,000	$1,446,000
Vehicle Miles Traveled (dollars per VMT reduced per year)	NA [3]	$1.70	$5.76	$0.01	$0.20	$0.74
Economy Principle						
Delay (dollars per VHD reduced per year) [4]	$0.29	$14	$82	$0.16	$3.51	$15

[1] Does not reflect costs associated with implementing the Alternative Land Use (e.g., developer subsidies, direct housing subsidies to low income households)
[2] Does not include CO2 emissions associated with non-recurring congestion
[3] Compared to the 2035 Baseline, the Freeway Performance Scenario increases VMT so no cost effectiveness figure is given
[4] Includes vehicle delay associated with recurrent and non-recurrent congestion

Table I.2
Costs of Infrastructure Scenarios (2007$)
Infrastructure Scenario Cost Summary (millions)

Freeway Performance	Capital Cost	Net Annual O&M Cost
TOS and ramp metering	$553	$16
HOV gap closures [1]	$60	-
Arterial signal coordination [2]	-	$9
Total	**$613**	**$24**

[1] The Freeway Performance scenario includes 43 HOV lane miles at $1.4 million per lane mile. Cost assumes use of existing shoulders.
[2] Signal coordination assumes $2,000 to retime each signal. There are 17,054 signals in the Bay Area. Signals need to be retimed every 4 years. It costs $500 every year to retime Bay Area signals.

HOT & Local Express Bus	Capital Cost	Net Annual O&M Cost
HOT Lanes: Equipment and Conversion [1]	$2,176	-
HOT Lanes: Freeway Widening [2]	$2,415	-
Local Buses and Light Rail [3]	$1,186	$539
Local Transit Priority Measures; Rapid Bus/BRT facilities [4]	$1,721	-
Express Buses [5]	$434	$77
Express Ramps, transit centers and Park and Ride [6]	$1,545	-
Total	**$9,477**	**$616**

[1] Annual HOT network net O&M cost (approx $104.8 million) not shown since revenues fully fund O&M costs. Assumes 490 miles of existing HOV lanes converted to HOT lanes and toll equipment and signs for 265 miles of new HOV/HOT lanes.Costs from Regional HOT Network Final Report (September 2007).
[2] Assumes 265 miles of freeway widened for HOV/HOT lanes. Costs from Regional HOT Network Final Report.
[3] Includes vehicles, costs for new or expanded transit yards are not included. Does not include guideway costs. Net Annual O&M costs assume a 35% farebox recovery.
[4] 410 route-miles of unfunded corridors identified; cost factors range from $2M-$16M per route-mile depending on degree of transit priority (source: AC Transit)
[5] Net Annual O&M costs assume a 35% farebox recovery. Estimated by Cambridge Systematics Inc. (10/07)
[6] Estimated by Cambridge Systematics Inc. (October 2007)

Regional Rail & Ferry	Capital Cost	Net Annual O&M Cost
Regional Rail Plan [1]	$49,584	$934
High speed rail [2]	$14,200	-
Ferry (vessels and terminal) [3]	$438	$276
Total	**$64,222**	**$1,210**

[1] Capital costs include $35 billion from the Regional Rail Plan for the San Francisco Bay Area (September 2007) and $13.3 billion from MTC Resolution 3434. Net Annual O&M costs assume a 35% farebox recovery . Does not include vehicle costs.
[2] Capital costs are for Pacheo and Altamont minus Caltrain and Dumbarton rail costs. Does not include vehicle costs. O&M not included because it is not included in the Regional Rail Plan.
[3] Costs from the Water Transit Authority (WTA) Implementation and Operations Plan (IOP) (July 2003) includes terminal and vehicle costs.